

2002-2003 Adviser's Edition

# Academic Catalog

Graduate and Undergraduate Degree Programs

Undergraduate Minors

General Education Requirements

Course Descriptions

Academic Policies



*Bloomsburg University of Pennsylvania*

**The official university catalog  
may be found at [www.bloomu.edu/academic](http://www.bloomu.edu/academic)**

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# General Education Requirements

## Introduction

The College of Liberal Arts, College of Science and Technology, College of Business and College of Professional Studies at Bloomsburg University of Pennsylvania administer undergraduate curricula.

Each curriculum, leading to a baccalaureate degree, requires successful completion of at least 128 semester hours in the major, general education and free electives. This section deals with general education; requirements for each major are listed under department headings. While electives are unrestricted, it's helpful to consult with a faculty adviser.

When a student makes a tentative choice of a major, preliminary or prerequisite courses required in that major are assigned. Admission is selective or restrictive at the junior year entry level for some curricula. The university is not bound to admit the student if the student is not admissible according to the competition for available spaces or other selective criteria.

Students who plan to major in two departments must have a major adviser in each department and meet all of the major requirements of each department and all of the general education requirements. Double majors in some departments may require more than the minimum 128 semester hours for graduation. Double majors in departments in two colleges must have the permission of both college deans to declare a double major.

## Credit, Semester Hour

A semester hour, or credit, is ordinarily defined as the credit for one weekly period of 50 minutes of lecture, discussion or recitation for one semester. In some cases as in laboratory, studio or internship, there may not be a one-to-one correspondence between experimental time and credit.

## Distribution Requirements

The general education program includes specific course requirements totalling 18 credits, distribution requirements totalling 36 credits and a diversity requirement of two courses. The goals of the general education program are to develop:

- An ability to communicate effectively;
- An ability to think analytically and quantitatively;
- A facility to make independent and responsible value judgments and decisions according to high ethical values and life goals;
- An appreciation of the need for fitness and lifelong recreation skills;
- A capacity for assessing the validity of ideas and an understanding of the approaches used to gain knowledge through the development of critical thinking abilities;
- A greater appreciation of theater, literature, art and music through stimulation of one's creative interests;
- An understanding of our society and the relative position of an individual in this society;

An understanding of the relationship between an individual and his/her physical and biological environments;

A familiarity with the major contributions of human knowledge in the humanities, social sciences, natural sciences and mathematics; and

An awareness and global understanding of the relative position of the individual in the world community.

## Additional Information

See PRP 3612 General Education Requirements

Questions regarding general education requirements may be directed to your academic adviser or to the Registrar.

## Specific Course Requirements

Communication (9 credits; unless student qualifies for 20.205 Honors Composition in which case only 6 credits are required.) Students eligible for 20.205 Honors Composition are excused from taking 20.101 and one of the second level courses.

20.101 Composition 1 and one of the following:

- 20.201 Composition 2
- 20.203 Approaches to Literary Study
- 31.460 Research in Art History
- 42.398 Research and Writing Skills
- 50.290 Writing in Biology
- 09.231 Technical Writing
- or a Writing-Intensive Literature course

- 20.131 Bible as Literature
- 20.151 Introduction to Literature
- 20.152 Literature and Society
- 20.156 Popular Literature
- 20.226 European Literature 1
- 20.227 European Literature 2
- 20.236 American Literature 1
- 20.237 American Literature 2
- 20.246 British Literature 1
- 20.247 British Literature 2
- 20.256 Non-Western Literature 1
- 22.257 Non-Western Literature 2

The remaining three credits in Communication are to be selected from these courses:

- 10.100 Foundations of French Literature and Culture
- 10.101 French 1
- 10.102 French 2
- 10.203 French 3
- 10.204 French 4
- 10.205 Applied Phonetics and Pronunciation
- 11.100 Foundations of German Literature and Culture
- 11.101 German 1
- 11.102 German 2
- 11.203 German 3
- 11.204 German 4
- 12.100 Foundations of Spanish Literature and Culture
- 12.101 Spanish 1
- 12.102 Spanish 2

- 12.203 Spanish 3
- 12.204 Spanish 4
- 12.205 Phonetic Theory and Practice
- 13.101 Russian 1
- 13.102 Russian 2
- 13.103 Russian 3
- 13.104 Russian 4
- 14.101 Italian 1
- 14.102 Italian 2
- 16.105 Chinese 1
- 16.106 Chinese 2
- 18.101 Latin 1
- 18.102 Latin 2
- 20.112 Practical Grammar
- 20.301 Creative Writing
- 25.103 Public Speaking
- 25.104 Interpersonal Speech Communication
- 74.153 Introduction to Sign Language

### **Quantitative-Analytical Reasoning (3 credits)**

- 08.303 Honors Seminar on Research
- 40.156 Business and Economics Math 1
- 40.236 Business and Economics Stat 1
- 45.260 Basic Social Statistics
- 48.160 Basic Statistics
- 53.101 Math Thinking
- 53.111 Finite Mathematics
- 53.118 Applied Matrix Algebra
- 53.123 Essentials Calculus
- 53.125 Calculus 1
- 53.141 Introduction to Statistics
- 53.202 Geometry and Statistics for Elementary Education Majors
- 53.241 Probability and Statistics
- 56.110 Introduction to Computer Science

### **Values, Ethics and Responsible Decision Making (3 credits)**

- 08.301 Honors Seminar: Values
- 08.303 Honors Seminar on Quantitative and Analytical Reasoning
- 09.213 Science, Technology and Human Values
- 09.230 Human Sexuality
- 28.297 Ethics
- 28.290 Medical Ethics
- 28.292 Contemporary Moral Problems
- 28.294 Ethics Politics and Public Policy
- 28.295 Business Ethics
- 41.105 Environmental Issues/Choices
- 42.210 Values Conflict 20th Cent
- 42.215 Global Issues: Contemporary Values
- 44.207 Ethics, Politics and Public Policy
- 45.320 Sociology of Women
- 46.102 Anthropology and World Problems
- 46.260 Men and Women Anthropology Perspective
- 48.131 Psychology Adjustment
- 48.254 Psychology Aspects Society Issues
- 50.254 Social Implications Biology
- 60.205 Career Development and Life Planning
- 82.100 Personal Health
- 82.217 Alcohol: Use and Abuse

### **Fitness and Recreational Skills (2 credits)**

Two credits of Military Science (67) satisfy the requirement.

- 05.112 Varsity Athletics
- 05.113 Varsity Athletics II
- 05.149 Aquatics - Begin Non-Swim
- 05.150 Beginning Aquatics
- 05.155 Swimnastics
- 05.200 CPR and Safety
- 05.214 Fencing
- 05.217 Bicycling
- 05.219 Tennis
- 05.220 Folk Dancing
- 05.221 Jazz Dance
- 05.222 Creative Dance
- 05.223 Modern Dance
- 05.224 Fitness Dance
- 05.225 Beginning Ballet
- 05.226 Jogging / Walking
- 05.228 Gymnastics
- 05.230 Weight Training and Fitness
- 05.231 Archery
- 05.232 Bowling
- 05.233 Badminton
- 05.234 Golf
- 05.235 Riflery
- 05.236 Volleyball
- 05.238 Racquetball-Handball
- 05.239 Square Dance
- 05.240 Fitness-Slimnastics
- 05.241 Judo-Self Defense
- 05.243 Backpacking
- 05.244 Orienteering
- 05.245 Canoeing
- 05.247 Basic Rock Climbing
- 05.248 Basic Sailing
- 05.250 Lifesaving
- 05.265 Basketball
- 05.270 Exercise and You
- 05.271 Intermediate Archery
- 05.272 Intermediate Bowling
- 05.273 Intermediate Golf
- 05.274 Intermediate Tennis
- 05.275 Intermediate Volleyball
- 05.276 Intermediate Judo
- 05.277 Advanced Sailing
- 05.298 Fitness and Wellness (1 credit only)
- 05.300 Decisions on Heath Behavior (1 credit only)
- 05.309 Decisions for Healthy Behavior (3)
- 05.311 Methods, Materials in Elementary School Physical Education (1 credit only)
- 05.321 First Aid and Safety (1 credit only)
- 05.333 School Camping and Outdoor Education
- 05.397 Adult Hlth Dev Program (1 credit only)
- 50.205 Intro to Nutrition (1 credit only)

## **Distribution Requirements**

Thirty-six semester hours are required with 12 semester hours required from each of the three general academic areas of humanities, social sciences and natural sciences and mathematics. No more than three semester hours from a given academic major may count toward this distribution requirement.

Courses which an individual uses to satisfy the specific communication, quantitative/analytical reasoning, values/

ethics and fitness and recreation requirements may not be used to satisfy distribution requirements. Bloomsburg University Curriculum Committee (BUCC) or an individual academic department, with the approval of the BUCC, may exclude any of its courses from being counted as a distribution requirement.

In some cases, qualifications exist in the form of prerequisites, two semester continuity, etc. Consult the class schedule, the university catalog or the student information system for prerequisites and other qualifications. Not every general education course is offered each semester.

The courses appearing here are approved for general education as of May 1, 1995. If a course was previously listed for general education and does not appear in this class schedule, that course will still fulfill general education credit for the student, provided the student enrolled in the course during the time the course was approved for general education. However, students scheduling the course after the course no longer is approved may not receive general education credit for the course.

Questions regarding courses listed as general education should be directed to the academic department which offers the course.

Courses selected to fulfill the distribution requirements must be from at least three different departments within each of the three groups with two or more credits required from each department selected. Courses which a student uses to satisfy the specific course requirements in the categories of communication, quantitative/analytical reasoning, values/ethics and fitness and recreation may not be used to satisfy the distribution requirements.

Students who otherwise meet the prerequisites are permitted to take any course offered by the departments listed below, unless the course is expressly excluded for general education by the university curriculum committee or the department with the approval of the curriculum committee.

No more than three credits from a given academic major may count toward the distribution requirement. Students with a double major must adhere to this policy for one of the majors.

### Group A - Humanities and the Arts

Select courses totalling 12 credits from these areas:

- 30 - Art
- 31- Art History
- 32 - Art Studio
- 25 - Communication Studies
- 20 - English
- 42 - History
- 10-18 - Languages and Cultures
  - French
  - German
  - Spanish
  - Russian
  - Italian
  - Japanese, Chinese
  - Latin
- 27 - Mass Communications
- 35 - Music
- 28 - Philosophy
- 26 - Theatre Arts

In addition, these courses are eligible:

- 08.101 Honors Humanities I
- 08.201 Honors Humanities II
- 09.491 Honors Independent Study Humanities I
- 09.492 Honors Seminar Humanities
- 09.493 Honors Independent Study Humanities II

### Group B - Social and Behavioral Sciences

Select courses totalling 12 credits from these departments:

- 46 - Anthropology
- 40 - Economics
- 41 - Geography
- 44 - Political Science
- 48 - Psychology
- 45 - Sociology, Social Welfare and Criminal Justice

In addition, these courses are eligible:

- 08.130 Honors Social Science I
- 08.230 Honors Social Science II
- 09.496 Honors Independent Study Soc Sci I
- 09.497 Honors Sem Soc Sci
- 09.498 Honors Independent Study Soc Sci II
- 70.101 Introduction to Exceptional Individuals
- 72.152 Introduction to Communications Disorders

The following courses are not eligible for group B credit:

- 40.156 Business and Economics Mathematics
- 40.180 Special Topics
- 40.246 Business and Economics Statistics I
- 40.356 Business and Economics Statistics II
- 40.455 Econometrics
- 40.470 Senior Seminar
- 40.480 Advanced Special Topics
- 40.490 Independent Study
- 41.350 Advance Planning

### Group C - Natural Sciences and Mathematics

Select courses totaling 12 credits from these departments:

- 30 - Biological and Allied Health Sciences
- 52 - Chemistry
- 51 - Geography and Geosciences
- 53 - Mathematics (but not computer science courses)
- 54 - Physics

In addition, these courses are eligible:

- 08.110 Honors Math and Science I
- 08.210 Honors Math and Science II
- 09.173 Seminar Natural Sciences and Mathematics
- 09.495 Honors Seminar Natural Sciences and Mathematics

The following courses are not eligible for Group C credit:

- 09.230 Human Sexuality
- 50.205 Intro to Nutrition
- 50.254 Social Implications Biology
- 54.180 CAD Engineering Graphics

### Cultural Diversity Requirement

The Cultural Diversity requirement is effective for all degree students entering or re-entering with the fall semester 1993 and thereafter. Each student must successfully complete two courses from this list of diversity focused courses. These courses may be applied toward courses for the major, general education or free electives.

- 05.334 Women in Sport
- 08.130 Honors Social Science I

- 08.302 Honors Seminar, Diversity  
09.230 Human Sexuality  
10.203 French III  
10.204 French IV  
10.211 Foundations of French Culture and Civilization  
10.212 France Today  
11.203 German III  
11.204 German IV  
11.211 German Culture and Civilization I  
11.212 German Culture and Civilization II  
12.203 Spanish III  
12.204 Spanish IV  
12.211 Spanish Culture and Civilization  
12.212 Spanish-American Culture and Civilization  
14.203 Italian III  
16.211 Chinese Culture and Civilization I  
16.212 Chinese Culture and Civilization II  
20.256 Non-Western Literature I  
20.257 Non-Western Literature II  
20.287 Black Women Writers  
20.288 Feminist Reading of Culture  
20.388 Gender/Race/Class  
20.436 African-American Literature  
25.220 Intercultural Communication  
25.309 Gender Issues in Communication  
25.494 Special Topic: Diversity  
28.408 Feminist Philosophy  
31.345 Near East Art: Islamic  
31.346 Oriental Art II  
40.131 Asian Culture to 1600  
40.313 Labor Economics  
41.102 World Cultural Geography  
42.141 Modern Far East  
42.143 Black Africa  
42.210 Values Conflict in 20th Century History  
42.224 Immigrant Experience  
42.227 American Women  
42.228 African American History  
42.228 African-American History  
42.329 The American Woman  
42.469 Women/Gender Euro 1  
42.470 Women/Gender Euro 2  
44.222 Women and Politics  
44.377 Feminist Political Theory  
45.215 Racial and Ethnic Minorities  
45.221 Social Work and Diversity  
45.352 Sociology of Women  
46.101 Introduction to Anthropology  
46.102 Anthropology and World Problems  
46.200 Principles of Cultural Anthropology  
46.290 Anthropology of Race and Racism  
46.310 Aztecs and Mayans  
46.320 Contemporary World Cultures  
46.333 Ethnic Identity in the United States  
46.340 Native North Americans  
46.350 Medical Anthropology  
46.370 Indigenous Cultures of Modern Mexico  
46.390 Sociology of the Child  
46.440 Language and Culture  
46.450 Peoples and Cultures of South America  
46.480 Religion and Magic  
48.350 Psychology of Sex and Gender  
60.393 Social Foundations of Education  
60.394 Education in an Urban Society  
60.406 Multicultural Education  
70.101 Introduction to Exceptional Individuals  
82.410 Community Health Nursing  
82.451 Transcultural Health Issues  
90.350 Value of Diversity in Business  
91.320 International Accounting  
93.355 Managing Multicultural Organizations  
97.380 International Marketing  
98.340 Law and Literature  
98.407 International Legal Environment  
98.460 Employment and Discrimination Law

# Department of Accounting

## Accounting (B.S.B.A.)

Among 65 semester hours of general education courses, students must take:

- 20.101 Composition I
- 20.201 Composition II
- 25.103 Public Speaking
- 40.121 Principles of Economics I
- 40.122 Principles of Economics II
- 40.156 Business and Economic Mathematics (or 53.123 Essentials of Calculus)
- 40.256 Business and Economics Statistics
- 53.118 Applied Matrix Algebra

**Requirements for the Major** - A total of 63 semester hours is required for a major in accounting under the business administration degree program. Required courses include:

**Business Core Curriculum** (24 semester hours):

- 91.221 Principles of Accounting I
- 91.223 Managerial Accounting
- 92.150 Introduction to Computer and Information Science
- 93.344 Principles of Management
- 93.481 Business Policies and Strategies
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing: Principles and Practices
- 98.331 Law and Legal Environment

**Accounting Requirements** (24 semester hours):

- 91.222 Principles of Accounting II
- 91.321 Intermediate Accounting I
- 91.322 Intermediate Accounting II
- 91.323 Intermediate Accounting III
- 91.324 Federal Tax Accounting
- 91.342 Auditing Theory and Procedure
- 91.348 Cost Accounting
- 98.332 Business and Commercial Law

**Accounting Electives** - (6 credits) must be 400-level accounting courses not to include 91.432 Accounting Internship or 91.498 Introduction to Health Care.

**Elective Courses** - Three courses (9 credit hours) are required in upper-level business or economics courses. Most accounting students complete a six-credit internship (91.432) to fulfill part of this requirement.

When selecting an elective, students should be sure they have proper prerequisites and avoid elective courses below that level for which the student has already been prepared in that subject field. Courses designated with a 40, 90, 91, 92, 93, 94, 96, 97 or 98 prefix are considered business or economics electives.

General education electives - Select a minimum of 11 semester hours in non-business elective courses. Note: Graduation requires successful completion of a total of 128 semester hours.

## Minor in Accounting

The following courses are required:

- 91.220 Financial Accounting
  - 91.223 Managerial Accounting
  - 91.321 Intermediate Accounting I
  - 91.322 Intermediate Accounting II
- Choose two of the following three courses:
- 91.324 Tax Accounting
  - 91.342 Auditing
  - 91.348 Cost Accounting

## Accounting (M.Ac.)

**Admission.** Applicants to the Master of Accounting must provide the School of Graduate Studies with the following:

- Official Graduate Management Admission Test (GMAT) or Graduate Record Examination scores

An official copy of all academic transcripts

Three letters of recommendation from individuals who have the knowledge to comment on the applicant's potential to successfully complete a graduate level course of study

Completion of the prerequisites listed under "Minimum Prerequisite Course Work"

Additional requirements as stipulated by the School of Graduate Studies

Individuals who have not completed all admissions requirements may take up to 12 approved semester hours of graduate courses at Bloomsburg which may be applied toward the degree upon successful admission to the graduate program.

**Prerequisite Course Work.** A baccalaureate degree with an emphasis in accounting from an accredited college or university, or a baccalaureate degree from an accredited college or university and the following:

A. Prerequisite general business and related topics courses including: principles of economics, statistics, computer information systems, business law, finance, management, marketing, calculus and ethics.

B. Prerequisite accounting courses including: principles of accounting, managerial accounting, intermediate accounting, tax, auditing, cost and an advanced accounting elective.

**Prerequisite Work Experience.** Practical work experience in the field of accounting or an undergraduate accounting internship.

**Retention and Graduation.** Graduation will be conferred upon successful completion of a minimum of 30 semester hours of graduate-level course work fulfilling all program requirements. Students must complete all required course work for graduation while maintaining a minimum overall GPA of 3.0. No more than two courses with a grade of C will be counted toward graduation. A grade lower than C will not be viewed as satisfactory progress toward graduation, although it will be included in the students GPA.

## Required courses

Fall Semester

- 91.501 Financial Accounting

91.523 Advanced Tax Accounting

91.551 International Accounting

93.511 Statistical Analysis

Spring Semester

91.504 Foundations of Financial Accounting

91.521 Advanced Cost Accounting

91.522 Advanced Audit Theory

91.553 Special Topics in Accounting

96.535 Financial Management

Summer Session

91.552 Controllership (graduate elective)

# Department of Anthropology

## Anthropology (B.A.)

In addition to 53 semester hours of general education requirements, a total of 36 semester hours is required for a major in anthropology. Additional elective courses satisfy the requirement for a bachelor's degree. The following courses are required: 46.200 Principles of Cultural Anthropology

46.210 Prehistoric Archaeology

46.220 Human Origins

46.385 Anthropology Research and Writing

46.470 History of Anthropological Thought and Theory

Choose one of the following four courses:

46.301 Field Archaeology

46.466 Independent Study in Anthropology

46.475 Field Methods in Cultural Anthropology

46.497 Internship in Anthropology

**Elective Courses** - Students may choose six courses, totaling 18 or more semester hours. At least six semester hours must come from each of two subdisciplines. Four courses may apply to either Subdisciplines A or B:

46.460 Applied Anthropology

46.466 Independent Study in Anthropology

46.495 Special Topics in Anthropology

46.497 Internship in Anthropology

### A. Archaeology and Physical Anthropology

46.300 Archaeological Method and Theory

46.301 Field Archaeology

46.310 Aztecs and Mayans

46.311 Archaeology of Northeastern North America

46.312 South American Archaeology

46.340 Native North Americans

46.405 Primates

### B. Cultural Anthropology

46.102 Anthropology and World Problems

46.260 Men and Women: An Anthropological Perspective

46.320 Contemporary World Cultures

46.333 Ethnic Identity in the United States

46.350 Medical Anthropology

46.360 Pseudoscience

46.370 Indigenous Cultures of Modern Mexico

46.390 Socialization of the Child

46.440 Language and Culture

46.450 Peoples and Cultures of South America

46.475 Field Methods in Cultural Anthropology

46.480 Religion and Magic

Students contemplating graduate school are advised to take an introductory course in computer science and at least six credit hours in a foreign language.

## Minor in Latin American Studies

In cooperation with the departments of History and Languages and Cultures, the department offers a 21-credit minor in Latin American Studies for students with an interest in the cultures of Mexico, Central and South America and the Spanish or French-speaking Caribbean. Six credits are in language courses, either Spanish or French. The remaining 15 credits are divided as follows.

A minimum of six credits from:

46.310 Aztecs and Mayas

46.312 South American Archaeology

46.333 Ethnicity in the United States

46.370 Indigenous Cultures of Modern Mexico

46.450 Peoples and Cultures of South America

46.495 Special Topics in Anthropology: Mexico Study Abroad

46.495 Special Topics in Anthropology: Peoples of the Caribbean

46.497 Internship in Anthropology (must be related to the minor)

A minimum of three credits from:

42.142 Latin America: From European Colonization to the Present

12.207 Hispanic Daily Life and Customs

12.211 Spanish Culture and Civilization

12.212 Spanish American Culture and Civilization

12.213 Hispanics in the U.S.: Culture and Literature

12.290 Spanish Studies Abroad (Latin America and Caribbean only)

10.290 French Studies Abroad (Caribbean only)

10.495 Special Topics (approved by adviser)

12.495 Special Topics (approved by adviser)

38.498 Internship in the Humanities: Puerto Rican Study Abroad

## Minor in Anthropology

A minor in Anthropology constitutes 18 semester hours in anthropology.

This includes three required courses:

46.200 Principles of Cultural Anthropology

46.210 Prehistoric Anthropology

46.220 Human Origins

and nine additional semester hours from department electives.

# Department of Art and Art History

## Art Studio (B.A.)

Administered by Art and Art History  
Effective Fall, 2002

Students must fulfill the requirements for the major, the general elective courses and whatever free elective credits remain to bring the number of semester hours to 128. Transfer students must take at least half the credits for the degree program at Bloomsburg University to graduate with a major in art studio or art history. Of the 13 courses needed, at least seven must be taken at Bloomsburg. All art courses at Bloomsburg are three semester hours unless indicated otherwise.

**Requirements for Art Studio** - A total of 39 semester hours is required for a major in art studio. Required courses include:

Core

32.111 Drawing I

32.212 Drawing II

32.151 Three-Dimensional Design

32.152 Two-Dimensional Design

32.231 Painting I

32.241 Sculpture I

Choose two courses from Art History (31)

**Specialization** - Three levels of one of the following: ceramics, fabric design, graphics, painting, photography, sculpture or weaving.

**Art Electives** - Complete the 39 credits for major with art electives

in Art History or Art Studio.

## Art History (B.A.)

Administered by Art and Art History  
Effective Fall, 2002

Students must fulfill the requirements for the major, the general elective courses and whatever free elective credits remain to bring the number of semester hours to 128. Transfer students must take at least half the credits for the degree program at Bloomsburg University to graduate with a major in art studio or art history. Of the 13 courses needed, at least seven must be taken at Bloomsburg. All art courses at Bloomsburg are three semester hours unless indicated otherwise.

**Requirements for Art History** - A total of 39 semester hours is required for a major in art history. The degree program in art history provides an overview of the history of art together with minimum competency in a foreign language pertinent to the discipline, as well as direct experience of the art-making process through studio courses. Art history majors are expected to work closely with their adviser to identify courses that are most relevant to their interests and postgraduate goals. Required courses include:

Core - Choose eight courses from the following:

31.215 American Art History

31.225 History of Architecture

31.235 Ancient and Medieval Art

31.236 Art from the Renaissance Through Impressionism

31.324 History of Photography

31.345 Islamic Art

31.346 Art History of the Far East

31.355 History of Modern Art

31.375 Independent Study in Art History

31.365 Italian Renaissance Art

31.366 Northern Renaissance Art

31.373 Romanesque and Gothic Art

31.450 Perspectives on Museums

31.451 Museum Exhibition

30.385 Philosophy/Psychology of Art

32.480 Internship In Art (depending on the nature of the internship experience, 3-6 credits)

Or any other Art History course (31)

**Art Studio:** Six semester hours in art studio courses in areas such as drawing, painting, sculpture, 2D or 3D design, ceramics, fabric design, graphics, photography, weaving and computer graphics. **Art electives:** Three semester hours in an art elective class (art history or art studio) **Language:** Six semester hours in a foreign language. Art history majors intending to continue studies at the graduate level should take two levels of the same language to acquire greater proficiency.

## Minor in Art History

15 semester hours in art history courses (Code 31); 30.101 Introduction to Art, for a total of 18 credits.

## Minor in Art Studio

The minor in Art Studio requires a total of 18 credit hours. Of these, 15 credit hours (five courses) must be in Art Studio (Code 32) from at least three different instructors. A second level of an art studio course must also be included. Finally, 30.101 Introduction to Art or an art history course (code 31) is also required, bringing the total for the minor to 18 credits.

## Art History (M.A.)

**Admission.** In addition to meeting the general admission requirements for the School of Graduate Studies, applicants must also include a one-page statement of their objectives and philosophy. Applicants to art history must include a writing sample and GRE scores. Those choosing the master's degree in art studio need to submit an 8" x 10" plastic sleeve of slides representative of their recent creative work. Upon acceptance, students are required to appear for a personal interview with the department chairperson, program coordinator and an adviser in their major field. At this time, any deficiencies in the applicant's background will be noted and an appropriate course of study outlined. A thesis and

an exhibition of creative work are required for art studio majors. A thesis and presented paper are required for art history majors.

**Retention and Candidacy.** Requirements of this program are outlined in the graduate catalog section.

**Graduation.** Art history majors will specialize in an area of study along with advanced general studies. A minimum of 30 semester hours is required; this number may be exceeded depending on the student's program. All other graduation requirements for this program are the same as for the School of Graduate Studies.

## Required Courses

Graduate courses in art history include:

- 31.560 Readings and Research in Contemporary Art History
- 31.565 Readings and Research in American Art History
- 31.570 Readings and Research in European Art History
- 31.575 Readings and Research in Oriental Art History
- 31.580 Readings and Research in Architectural Art History
- 31.585 Art and Culture of France
- 31.592 Readings and Research in Advanced Visual Aesthetics
- 31.595 Directed Study in Art History
- 30.590 Current Theories in Art and Art Education
- 30.591 Visual Arts of the Exceptional Child
- 30.595 Master's Thesis

The preceding courses in art studio and art history carry 3 semester hours of credit, except for 31.595 and 32.595 (Directed Study) which carry variable credit and 30.595 Master's Thesis which carries 3 to 6 semester hours.

## Art Studio (M.A.)

**Admission.** In addition to meeting the general admission requirements for the School of Graduate Studies, applicants must also include a one-page statement of their objectives and philosophy. Those choosing the master's degree in art studio need to submit an 8" x 10" plastic sleeve of slides

representative of their recent creative work. Upon acceptance, students are required to appear for a personal interview with the department chairperson, program coordinator and an adviser in their major field. At this time, any deficiencies in the applicant's background will be noted and an appropriate course of study outlined. A thesis and an exhibition of creative work are required for art studio majors. A thesis and presented paper are required for art history majors.

How to Apply

**Retention and Candidacy.** Requirements of this program are outlined in the graduate catalog section.

**Graduation.** Art studio majors will choose an area of concentration consisting of four levels of the selected specialization along with selected elective courses as suggested by their committee. A minimum of 30 semester hours is required; this number may be exceeded depending on the student's program. All other graduation requirements for this program are the same as for the School of Graduate Studies.

## Required Courses

Graduate courses in art studio must include four levels in a chosen discipline plus a six-credit graduate thesis. Students should plan the balance of degree requirements with their adviser. Disciplines include:

- 32.500, 01, 02, 03 Advanced Ceramics I, II, III, IV
- 32.510, 11, 12, 13 Advanced Drawing I, II, III, IV
- 32.520, 21, 22, 23 Advanced Crafts I, II, III, IV
- 32.530, 31, 32, 33 Advanced Graphics I, II, III, IV
- 32.540, 41, 42, 43 Advanced Painting I, II, III, IV
- 32.550, 51, 52, 53 Advanced Sculpture I, II, III, IV
- 32.580, 81, 82, 83 Advanced Photography I, II, III, IV
- 32.595 Directed Study in the Studio Arts

# Department of Audiology and Speech Pathology

## Audiology and Speech Pathology (B.S.)

In addition to 54 semester hours of general education requirements, a total of 51 semester hours is required for a major in speech pathology and audiology and with the addition of 23 semester hours of elective courses, the university degree requirement of 128 hours is met. Students should work with their adviser on course selection.

The following courses in speech pathology and audiology are required:

- 48.160 Basic Statistics
- 50.366 Anatomy and Physiology: Head, Neck and Thorax
- 70.101 Introduction to the Exceptional Individual
- 70.202 Technology for Exceptionalities
- 72.152 Introduction Communication Disorders
- 72.200 Introduction to Audiology
- 72.220 Phonetics
- 72.240 Normal Language Acquisition
- 72.300 Auditory Training and Speech Reading
- 72.410 Applied Speech Science
- 72.320 Assessment and Remediation of Language Disorders
- 72.330 Assessment and Remediation of Speech Disorders
- 72.340 Applied Behavioral Analysis for Speech and Language
- 72.430 Fundamentals of Audiology
- 72.450 Clinical Observation
- 72.460 Psycholinguistics
- 54.106 Science of Sound
- 20.112 Practical Grammar and Usage

## Minor in Audiology and Speech Pathology

The minor in Audiology and Speech Pathology is offered to any individual enrolled at Bloomsburg who wishes to gain an introductory understanding of the professions of audiology and/or speech pathology. The undergraduate minor addresses basic processes of communication, development of communicative competence and an overview of the communication disorders. Students can use the minor to enhance preparation in their major or to explore the professions in preparation for graduate education in audiology or speech pathology. Completion of the minor does not qualify the student for certification as an audiologist or speech pathologist, nor does it meet the requirements for a speech-language assistant.

Choose six of the following seven courses:

- 72.152 Introduction Communication Disorders
- 72.200 Introduction to Audiology
- 72.220 Phonetics
- 72.240 Normal Language Acquisition
- 72.300 Auditory Training and Speech Reading
- 72.410 Applied Speech Science
- 72.460 Psycholinguistics

## Audiology (M.S.)

**Admission.** The applicant is required to submit a one-page, typed letter of intent stating professional background, experience and rationale for wanting to be admitted to audiology.

The applicant is required to submit three letters of recommendation with the names, addresses, positions and telephone numbers of the references who have knowledge of the applicant's academic and clinical background.

An applicant must have a baccalaureate degree from an accredited institution, with a minimum grade point average of 2.8. Students who do not have an undergraduate major in the area of communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies as prescribed by the faculty following individual transcript analysis.

The Graduate Record Examination is required of all applicants. Typically, successful students have had scores of at least 470 on the verbal, 520 on the quantitative and 570 on the analytical portions of the exam.

Applicants who fail to satisfy the program's requirements may be admitted on a provisional basis. In such cases, the terms of the conditional admission will be specified for the individual applicant. Deadline for submission of application materials is March 1.

**Retention.** The student must maintain a QPA of 3.0 with a maximum of two Cs on average throughout the graduate program. A grade of C or lower in any clinical experience will necessitate repeating the course to achieve a grade of B or higher.

**Graduation.** A minimum of 54 semester hours is required to complete the master's program.

## Required Courses

A thesis is required. The M.S. in Audiology degree program has monitoring and exit criteria. There are periodic comprehensive reviews of each student's academic and clinical abilities. Required courses:

### Undergraduate Courses

- 72.200 Introduction to Audiology
- 72.300 Auditory Training and Speech Reading

### Graduate Courses

- 72.500 Measurement of Hearing Loss
- 72.502 Physiological Methods in Audiology
- 72.504 Hearing Aids and Auditory Training
- 72.506 Externship: Clinical Practicum in Audiology I
- 72.508 Externship: Clinical Practicum in Audiology II
- 72.510 Research in Audiology
- 72.512 Seminar in Audiology: Special Problems
- 72.514 Seminar in Audiology: Industrial and Public Health Audiology
- 72.516 Seminar in Audiology: Auditory Problems in Children

- 72.518 Seminar in Audiology: Theoretical and Clinical Masking
- 72.520 Educational Audiology
- 72.522 Aural Rehabilitation: Theory and Practice
- 72.524 Clinical Methods and Practicum in Audiology I
- 72.525 Clinical Methods and Practicum in Audiology II
- 72.526 Clinical Methods and Practicum in Audiology III
- 72.527 Clinical Methods and Practicum in Audiology IV
- 72.532 Electronics and Instrumentation in Audiology
- 72.599 Master's Thesis

### Elective Courses

- 72.528 Clinical Methods and Practicum in Audiology
  - 72.590 Independent Study and Research
  - 72.591 Independent Study and Research
  - 74.568 Advanced American Sign Language
- Other elective courses available via advisement.

## Speech Pathology (M.S.)

Administered by Audiology and Speech Pathology  
Effective Fall, 2002

**Admission.** In addition to meeting the general admission requirements for the School of Graduate Studies, applicants for the master's degree program in speech pathology must meet the following requirements:

Applicants are required to submit a one-page, typed letter detailing their professional background, experience and rationale for wanting to be admitted to the program in speech pathology.

Applicants are required to submit three letters of recommendation from references who have knowledge of their academic and clinical background. This information must include the name, address, position and telephone number of each reference.

Applicants must have a bachelor's degree from an accredited institution with a major in communication disorders and a minimum QPA of 2.8. Applicants whose major is in an area other than communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies. These will be prescribed by faculty following analysis of the individual's transcript.

The Graduate Record Examination is required of all applicants. Typically, successful students have had scores of at least 1450.

Deadline for submission of application materials is February 15.

**Retention.** Graduate students must maintain a QPA of 3.0 with no more than two Cs throughout the graduate program. If a grade of C is earned in the final clinic course (Clinic III), the course must be repeated. To progress in graduate school, students must maintain adequate academic standing and adhere to the department suitability clause.

**Graduation.** The graduate program in speech pathology consists of a minimum of 55 semester hours with most courses being required. Clinical experience is considered necessary and inseparable from the existing course sequence. It becomes an important step in the development of a competent clinician, linking the classroom and textbook information with clinical experience, certification and eventual employment in the field.

### Required Courses

- 72.550 Adult Aphasia
- 72.552 Preschool Language Disorders
- 72.554 Stuttering
- 72.556 Phonology
- 72.558 Clinic I
- 72.560 Voice Disorders
- 72.562 Language Disorders of School-aged Children
- 72.565 Speech Disorders in Adults and Children
- 72.566 Clinic II
- 72.570 Adult II - Secondary Language Disorders
- 72.572 Augmentative Communication
- 72.574 Clinical Instrumentation
- 72.576 Clinic III
- 72.580 Communication Disorders of the Traumatically Head Injured
- 72.582 Research in Speech and Language Pathology
- 72.583 Swallowing Disorders
- 72.584 Field Experience I
- 72.586 Field Experience II
- Seminar in Communication Disorders

### Elective Courses

- 72.530 Fundamentals of Audiology
- 72.568 Speech Habilitation in the Schools
- 72.574 Seminar in Communication Disorders
- 72.590 Independent Study and Research
- 72.591 Independent Study and Research
- 72.592 Workshop in Audiology and/or Speech Pathology
- 72.593 Workshop in Audiology and/or Speech Pathology
- 72.594 Workshop in Audiology and/or Speech Pathology
- 72.599 Master's Thesis

# Department of Biological and Allied Health Sciences

## Allied Health Preparatory Programs

**Pre-Physical Therapy** - Many pre-physical therapy students complete the bachelors degree in biology as this program of study fulfills the requirements for most physical therapy schools including those at the doctoral level. Students are encouraged to work closely with their advisor to ensure an efficient plan of study. The following courses comprise a two-year sequence that fulfills the admissions requirements for the "2+3" program of our affiliate, Thomas Jefferson University. A total of 59-62 credits are required.

- 50.114 Concepts in Biology I
- 50.115 Concepts in Biology II
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measures
- 54.111 Introductory Physics I
- 54.112 Introductory Physics II
- 53.141 Introduction to Statistics or 48.160 Basic Statistics
- 20.101 English Composition I
- 20.201 English Composition II
- 48.101 General Psychology
- 48.110 Life-Span Psychology or 48.335 Abnormal Psychology

Take one of the following options in Mathematics:

**Option 1**

- 53.113 Precalculus or 53.123 Essentials of Calculus or 53.125

**Analysis I**

- 53.141 Introduction to Statistics or 48.160 Basic Statistics

**Option 2**

- 53.112 Trigonometry

- 53.114 College Algebra

Free electives (9 credits) 56.110 Introduction to Computer Science is recommended

**Pre-Occupational Therapy** - Pre-occupational therapy students can follow the bachelors degree in biology curriculum as this program of study fulfills the requirements for most occupational therapy schools including those at the masters level. Students are encouraged to work closely with their advisor to ensure an efficient plan of study. The following courses comprise a two-year sequence that fulfills the admissions requirements for the "2+2" program of our affiliate, Thomas Jefferson University. A total of 55 credits are required.

- 50.114 Concepts in Biology I
  - 50.115 Concepts in Biology II
  - 50.173 Anatomy and Physiology I
  - 50.174 Anatomy and Physiology II
- Choose one of the following six courses:

- 53.111 Finite Mathematics
- 53.112 Trigonometry
- 53.113 Precalculus
- 53.114 College Algebra

- 53.123 Essentials of Calculus

- 53.125 Analysis I

- 53.141 Introduction to Statistics or 48.160 Basic Statistics

- 20.101 English Composition I

- 20.201 English Composition II

- 45.211 Principles of Sociology

- 46.200 Principles of Cultural Anthropology or 45.215 Racial and

- Ethnic Minorities

- 48.101 General Psychology

- 48.110 Life-Span Psychology or 48.211 Child Psychology

- 48.335 Abnormal Psychology

- Free electives (15 credits) 54.111 Introductory Physics I is strongly recommended

Although not required by Thomas Jefferson University the following are required by many OT programs:

- 52.101 Introduction to Chemistry

- 52.108 Physiological Chemistry

- 54.111 Introductory Physics I

- 54.112 Introductory Physics II

**Pre-Pharmacy** - Pre-pharmacy students can follow the bachelors degree in biology curriculum as this program of study fulfills the requirements for most colleges of pharmacy in the United States including those at the doctoral level. The courses listed below fulfill admissions requirements for most pharmacy schools granting advanced standing to transfer students. However, pre-pharmacy students are encouraged to work closely with their advisor for guidance in selecting courses for specific institutions.

- 50.107 Medical Terminology

- 50.114 Concepts in Biology I

- 50.115 Concepts in Biology II

- 52.115 Fundamentals of Inorganic Chemistry

- 52.116 Chemical Principles and Measures

- 52.231 Organic Chemistry I

- 52.232 Organic Chemistry II

- 53.125 Analysis I

- 53.126 Analysis II

- 54.111 Introductory Physics I

- 54.112 Introductory Physics II

- 20.101 English Composition I

- 20.201 English Composition II

- 25.103 Public Speaking or 25.104 Interpersonal Communication

- 40.121 Principles of Economics I

The following courses are recommended for specific pharmacy schools

- 05 Health and Physical Education

- 28.290 Medical Ethics

- 40.122 Principles of Economics II

- 45.211 Principles of Sociology

- 48.101 General Psychology

- 50.173 Anatomy and Physiology I

- 50.174 Anatomy and Physiology II

- 50.242 Biology of Microorganisms

**59.498 Internship in Natural Sciences**

Internship and/or volunteer experience in pharmacy is strongly recommended or required by many schools  
2 Literature electives

**Pre-Physician Assistant** - The admissions requirements for physician assistant programs vary considerable from no college courses required to a completed bachelors degree in a science-related field. Students who do not have specific schools in mind are encouraged to follow the curriculum requirements for the bachelors degree in biology. Students are encouraged to work closely with their advisor to ensure an efficient plan of study. The courses listed below fulfill the admissions requirements for most institutions in Pennsylvania offering a certificate of completion, a bachelors degree, or a masters degree in physician assistant studies.

50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.173 Anatomy and Physiology I  
50.174 Anatomy and Physiology II  
50.240 Introductory Microbiology  
50.233 Human Genetics  
52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measures  
52.230 Fundamentals of Organic Chemistry  
52.341 Biochemistry  
53.114 College Algebra (or higher math)  
53.141 Introduction to Statistics or 48.160 Basic Statistics  
56.110 Introduction to Computer Science  
20.101 English Composition I  
20.201 English Composition II  
28.290 Medical Ethics  
45.211 Principles of Sociology  
45 Sociology elective  
48.101 General Psychology  
48.210 Life Span Psychology  
48.253 Social Psychology  
2 Humanities electives

**Biology (B.A.)**

Biology majors may substitute 50.290 Writing in Biology for the second English writing course (20.200 or 20.201). In addition to general education requirements, additional free elective hours are required to meet the university requirement of 128 hours for a baccalaureate degree. Students may choose an option in microbiology, biotechnology or marine biology.

50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.242 Biology of Microorganisms  
50.271 Cell Biology  
50.332 Genetics  
50.351 General Ecology  
50.481 Senior Biology Seminar  
50.479 Integrated Physiology Laboratory

Choose one of the following physiology lecture courses:

50.472 Animal Cell Physiology  
50.474 Vertebrate Systems Physiology  
50.477 Plant Physiology  
50.478 Microbial Physiology

And additional biology courses for a minimum of 39 semester hours.

52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measurements  
52.230 Fundamentals of Organic Chemistry  
52.341 Biochemistry  
Mathematics (6 hours)

Choose one from the following three sets of options:

56.110 Introduction to Computer Science and 53.141 Introduction to Statistics (or 48.160 Basic Statistics)

OR

56.110 Introduction to Computer Science and 53.125 Analysis I (or 53.123 Essentials of Calculus)

OR

53.141 Introduction to Statistics (or 48.160 Basic Statistics) and 53.125 Analysis I (or 53.123 Essentials of Calculus)

Languages and Cultures: at least one semester of any of the following courses: 10.102 French II, 10.203

French III, 10.204 French IV, 11.102 German II, 11.203 German III, 11.204 German IV, 12.102 Spanish II, 12.203 Spanish III, 12.204 Spanish IV, 13.102 Russian II, 13.203 Russian III, 13.204 Russian IV; 14.102 Italian II or 16.106 Chinese II.

**Biology (B.S.)**

Biology majors may substitute 50.290 Writing in Biology for the second English writing course (20.200 or 20.201). In addition to general education requirements, additional free elective hours are required to meet the university requirement of 128 hours for a baccalaureate degree. Students may choose an option in microbiology, biotechnology, or marine biology.

50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.242 Biology of Microorganisms  
50.271 Cell Biology  
50.332 Genetics  
50.351 General Ecology  
50.481 Senior Biology Seminar  
50.479 Integrated Physiology Laboratory  
52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measurements  
52.231 Organic Chemistry I  
52.232 Organic Chemistry II  
52.341 Biochemistry

Choose one of the following physiology lecture courses:

50.472 Animal Cell Physiology  
50.474 Vertebrate Systems Physiology  
50.477 Plant Physiology  
50.478 Microbial Physiology

And additional biology courses for a minimum of 39 semester hours.

Choose one of the following two combinations:

54.111 Introductory Physics I and 54.112 Introductory Physics II

OR

54.211 General Physics I and 54.212 General Physics II

Choose one from the following three sets of options:

53.141 Introduction to Statistics or  
48.160 Basic Statistics and  
53.123 Essentials of Calculus

OR

53.141 Introduction to Statistics or

- 48.160 Basic Statistics and  
53.125 Analysis I  
OR  
53.125 Analysis I and  
53.125 Analysis II

Languages and Cultures: at least one of any of the following courses: 10.102 French II, 10.203 French III, 10.204 French IV, 11.102 German II, 11.203 German III, 11.204 German IV, 12.102 Spanish II, 12.203 Spanish III, 12.204 Spanish IV, 13.102 Russian II, 13.203 Russian III, 13.204 Russian IV; 14.102 Italian II or 16.106 Chinese II.

## Marine Science Option

This option provides the biology major with the opportunity to specialize in marine biology while obtaining a foundation in the fundamental principles of biological science. Program specific courses in marine biology are offered at the Marine Science Center, Wallops Island, Va., a field station supported by the department.

### Biology:

- 50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.211 Invertebrate Zoology or 55.221 Marine Invertebrates  
50.242 Biology of Microorganisms  
50.271 Cell Biology  
50.332 Genetics  
50.351 Ecology or 55.260 Marine Ecology  
50.380 Biology Seminar

Choose one of the following physiology lecture courses:

- 50.472 Animal Cell Physiology  
50.474 Vertebrate Systems Physiology  
50.477 Plant Physiology  
50.478 Microbial Physiology

### Marine Biology:

- 55.241 Marine Biology

Electives (6 semester hours):

- 55.250 Wetland Ecology  
55.298 Physiology of Marine Invertebrates  
55.300 Behavior of Marine Organisms  
55.320 Marine Microbiology  
55.330 Tropical Invertebrates  
55.342 Marine Botany  
55.343 Marine Ichthyology  
55.345 Marine Ornithology  
55.394 Comparative Physiology of Marine Organisms  
55.431 Ecology of Marine Plankton  
55.432 Marine Evolutionary Ecology  
55.441 Biology of Molluscs  
55.464 Biological Oceanography  
55.470 Research Diver Methods  
55.490 Marine Aquaculture  
55.491 Coral Reef Ecology  
55.492 Marine Mammals  
55.493 Behavioral Ecology

## Microbiology Option

The option provides a biology major the opportunity to specialize in microbiology while obtaining a general background in biology. The option is also open to medical technology majors; see the section on Medical

Technology. The requirements for this option are the same for the Bachelor of Science program as they are for the Bachelor of Arts program.

- 50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.242 Biology of Microorganisms  
50.271 Cell Biology  
50.332 Genetics  
50.342 Medical Bacteriology  
50.343 Immunology  
50.351 General Ecology  
50.481 Senior Biology Seminar  
50.479 Integrated Physiology Laboratory

Select one of the following physiology lecture courses (50.478 Microbial Physiology is recommended):

- 50.472 Animal Cell Physiology  
50.474 Vertebrate Systems Physiology  
50.477 Plant Physiology  
50.478 Microbial Physiology

Electives (9 semester hours) Choose from:

- 50.333 Molecular Biology  
50.350 Plant Pathology  
50.432 Microbial Genetics  
50.442 Virology of Mammals  
50.450 Mycology  
50.455 Environmental Microbiology  
50.470 Medical Parasitology

## Minor in Biology

The minor in biology consists of 22 semester hours. Required courses are:

- 50.114 Concepts in Biology I  
50.115 Concepts in Biology II  
50.242 Biology of Microorganisms  
50.271 Cell Biology

and at least two courses (6 semester hours) at the 300-level or above that are chosen from departmental offerings acceptable to the major. These may not include: 50.380, 50.390, 50.490, 50.493 and 50.494

**Internship/Independent Study** — The department provides opportunities for students to engage in internships and independent study. Only 6 semester hours can be applied as biology electives from the following courses, with no more than 3 semester hours applied as internship (50.490):

- 50.390 Independent Study in Biology I  
50.490 Internship in Biology  
50.493 Honors Independent Study I - Biological Research  
50.494 Honors Independent Study II - Biological Research

## Biology (M.Ed.)

### Admission

An undergraduate degree in biology with a Level I certification is required. In addition to the requirements of the graduate school, a Bachelor of Science or Bachelor of Arts in biology or its equivalent is required, general GRE scores, and two letters of recommendation (see below) are required. Undergraduate deficiencies must be addressed prior to admission to the program or during the first semester in consultation with the program coordinator. Deficiencies may be addressed by

undergraduate course work without credit earned toward the degree, by graduate course work when suitable, or by outside readings. The method of satisfying deficiencies is decided by the student and graduate program coordinator in consultation with the departmental graduate committee. Two letters of recommendation from previous science faculty are required. At least one letter should be from a faculty member who instructed the applicant in an upper-level (junior or senior) biology course. Applicants with research experience should submit at least one letter from a research advisor. Others may submit a letter from any professor with the ability to evaluate the applicant's laboratory abilities. A minimum of two weeks is required for review of a completed application by the department's graduate committee.

## Candidacy

To be admitted to candidacy, every biology graduate student must pass an oral candidacy examination. The purpose of the examination is to assess the breadth of the student's background in biology. The examination will cover general principles and concepts of biology. The oral candidacy examination must be scheduled before completing 6 credit hours of graduate coursework and be successfully completed before scheduling beyond 12 hours. Candidacy requires, in addition, that the student has a 3.0 or higher QPA. The examination will consist of six oral questions addressed to the student by the examination committee. Each question will be given 10 minutes of the examination.

The Examination Committee is composed of:

- The student's academic advisor and tentative thesis committee (thesis option) or the student's tentative reading committee (non-thesis option);

- At least three-fourths of the departmental graduate committee; and

- Any other departmental graduate faculty member in attendance. All departmental graduate faculty are strongly encouraged to attend candidacy exams.

The outcome of the candidacy examination will be determined by a simple majority vote by the examination committee. Each graduate faculty member present, whether or not they posed a question, shall have one vote. One of three outcomes is possible:

**Unconditional Pass** - The student may proceed with the program. The application for candidacy and for transfer credit, if applicable, should be made immediately following successful completion of the oral candidacy exam.

**Conditional Pass** - The examination committee decides that the student has an adequate background in biology, except in one or two key areas. A consensus is reached (by simple majority vote) as to conditions. Conditions may include an oral retest of problem areas, a written test in problem areas, or remedial actions. Remedial actions may include taking a course or readings and study in a specified area, for example. The student will be informed of the conditions decided upon by the committee. If after completing or attempting to complete the conditions, the examination committee decides that the student has not met the conditions set forth by the committee, he or she will be required to retake the entire examination according to the stipulations outlined

above under "fail." If the student fails the examination at this retake, the student will be dismissed from the program.

**Fail** - The student must retake the entire exam at a later date to continue with the master's program. The student has one more chance to pass. In order to continue with the program, the student must pass the examination unconditionally on the second attempt.

## Graduation

A minimum of 30 semester hours in graduate-level courses is required. A minimum of 18 semester hours must be taken from 500-level courses (see list below), including two required education courses: 60.501 Major Philosophies of Education and 79.591 Research in Education. Either 50.591 Directed Study in Biology or 50.592 Master of Education Thesis is required to fulfill the research component. An oral defense of the research component is required.

## Required Courses

A total of 30 semester hours is required for a graduate degree in Biology. There are no required biology courses; all are considered elective courses. Courses are selected in conjunction with the student's adviser and advisory committee.

- 50.411 Radiation Biology
- 50.441 Cytogenetics
- 50.455 Environmental Microbiology
- 50.457 Entomology
- 50.462 Plant Anatomy
- 50.463 Biological Photographic Techniques
- 50.472 Animal Cell Physiology
- 50.474 Vertebrate Systems Physiology
- 50.477 Plant Physiology
- 50.478 Microbial Physiology
- 50.479 Integrated Physiology Laboratory
- 50.530 Evolution
- 50.531 Developmental Biology
- 50.532 Microbial and Molecular Genetics
- 50.550 Mycology
- 50.551 Conservation Biology
- 50.559 Ornithology
- 50.560 Population Biology
- 50.561 Animal Behavior
- 50.570 Medical Parasitology
- 50.571 Endocrinology
- 50.572 Comparative Animal Physiology
- 50.573 Systemic Physiology
- 50.575 Cell Physiology
- 50.576 Neuromuscular Physiology
- 50.590 Current Topics in Biology
- 50.591 Directed Study in Biology
- 50.592 Master of Education Thesis

The following courses are offered at the Marine Science Center, Wallops Island, Va.

- 55.431 Ecology of Marine Plankton
- 55.464 Biological Oceanography
- 55.432 Marine Evolutionary Ecology
- 55.490 Marine Aquaculture
- 55.491 Coral Reef Ecology
- 55.492 Marine Mammals
- 55.500 Problems in Marine Science
- 55.540 Environmental Science Education
- 55.541 Biology of Mollusca

55.570 Research Cruise-Biology  
55.593 Behavior Ecology

## Biology (M.S.)

### Admission

In addition to the requirements of the graduate school, a Bachelor of Science or Bachelor of Arts in biology, or its equivalent, is required. General GRE scores and two letters of recommendation are also required (see below for details). Undergraduate deficiencies must be addressed prior to admission to the program or during the first semester in consultation with the program coordinator. Deficiencies may be addressed by undergraduate course work without credit earned toward the degree, by graduate course work when suitable, or by outside readings. The method of satisfying deficiencies is decided by the student and graduate program coordinator in consultation with the departmental graduate committee. Two letters of recommendation from previous science faculty are required. At least one letter should be from a faculty member who instructed the applicant in an upper-level (junior or senior) biology course. Applicants with research experience should submit at least one letter from a research adviser. Others may submit a letter from any professor with the ability to evaluate the applicant's laboratory research potential. A minimum of two weeks is required for review of a completed application by the department's graduate committee.

### Candidacy

To be admitted to candidacy, every biology graduate student must pass an oral candidacy examination. The purpose of the examination is to assess the breadth of the student's background in biology. The examination will cover general principles and concepts of biology.

The oral candidacy examination must be scheduled before completing 6 credit hours of graduate coursework and be successfully completed before scheduling beyond 12 hours. Candidacy requires, in addition, that the student has a 3.0 or higher QPA. The examination will consist of six oral questions addressed to the student by the examination committee. Each question will be given 10 minutes of the examination.

The Examination Committee is composed of:

The student's academic advisor and tentative thesis committee (thesis option) or the student's tentative reading committee (non-thesis option);

At least three-fourths of the departmental graduate committee; and

any other departmental graduate faculty member in attendance. All departmental graduate faculty are strongly encouraged to attend candidacy exams.

The outcome of the candidacy examination will be determined by a simple majority vote by the examination committee. Each graduate faculty member present, whether or not they posed a question, shall have one vote. One of three outcomes is possible:

**Unconditional Pass** - The student may proceed with the program. The application for candidacy and for transfer credit, if applicable, should be made immediately following successful completion of the

oral candidacy exam.

**Conditional Pass** - The examination committee decides that the student has an adequate background in biology, except in one or two key areas. A consensus is reached (by simple majority vote) as to conditions. Conditions may include an oral retest of problem areas, a written test in problem areas, or remedial actions. Remedial actions may include taking a course or readings and study in a specified area, for example. The student will be informed of the conditions decided upon by the committee. If after completing or attempting to complete the conditions, the examination committee decides that the student has not met the conditions set forth by the committee, he or she will be required to retake the entire examination according to the stipulations outlined above under "fail." If the student fails the examination at this retake, the student will be dismissed from the program.

**Fail** - The student must retake the entire exam at a later date to continue with the master's program. The student has one more chance to pass. In order to continue with the program, the student must pass the examination unconditionally on the second attempt.

### Graduation

A minimum of 30 semester hours of graduate-level courses is required.

### Required Courses

Administered by Biological and Allied Health Sciences  
Effective Fall, 2002

A total of 30 credits is required for graduation. Biostatistics (53.546) is required. Master of Science Thesis (50.593) is required for students in the thesis option. All other courses are considered elective courses, but require the approval of the student's adviser and advisory committee.

50.411 Radiation Biology  
50.441 Cytogenetics  
50.455 Environmental Microbiology  
50.457 Entomology  
50.462 Plant Anatomy  
50.463 Biological Photographic Techniques  
50.472 Animal Cell Physiology  
50.474 Vertebrate Systems Physiology  
50.477 Plant Physiology  
50.478 Microbial Physiology  
50.479 Integrated Physiology Laboratory  
50.530 Evolution  
50.531 Developmental Biology  
50.532 Microbial and Molecular Genetics  
50.550 Mycology  
50.551 Conservation Biology  
50.559 Ornithology  
50.560 Population Biology  
50.561 Animal Behavior  
50.570 Medical Parasitology  
50.571 Endocrinology  
50.572 Comparative Animal Physiology  
50.573 Systemic Physiology  
50.575 Cell Physiology  
50.576 Neuromuscular Physiology  
50.590 Current Topics in Biology  
50.591 Directed Study in Biology

50.593 Master of Science Thesis

Marine science courses offered at Wallops Island, Va.

55.431 Ecology of Marine Plankton

55.432 Marine Evolutionary Ecology

55.464 Biological Oceanography

55.490 Marine Aquaculture

55.491 Coral Reef Ecology

55.492 Marine Mammals

55.500 Problems in Marine Science

55.540 Environmental Science Education

55.541 Biology of Mollusca

55.570 Research Cruise-Biology

55.593 Behavioral Ecology

**Thesis Option.** This option is recommended for students

planning to continue their graduate studies or

professional training. A minimum of 18 semester hours must be taken from 500-level courses. 50.593 Master of Science Thesis accounts for six of these semester hours. An oral defense of the thesis is required.

**Non-Thesis Option.** This option is tailored for students interested in non-research-oriented careers. A minimum of 18 semester hours must be taken from 500-level courses. In addition, one of the following must be completed:

50.591 Directed Study in Biology for three semester hours, which must be defended orally.

A departmental research paper based on the literature must be submitted and defended orally. The departmental paper carries no semester hour credit.

# Department of Business Education and Office Information Systems

## Business, Computer and Information Technology (K-12)

### Required Courses

Included in 53 semester hours of general education requirements, the following general education courses are required with a grade of C or better:

An English or American Literature course

20.101 Composition I

20.201 Composition II

25.103 Public Speaking

40.121 Principles of Economics I

40.122 Principles of Economics II

48.101 General Psychology

70.101 Introduction to the Exceptional Individual

53.115 Matrix Algebra

Choose from one of the following two courses:

40.156 Business and Economic Mathematics

53.123 Essentials of Calculus

### Business BCIT requirements

40.256 Business and Economic Statistics I

91.220 Financial Accounting

91.223 Managerial Accounting

93.481 Principles of Management

93.481 Business Policies

96.313 Corporate Finance

97.310 Marketing Principles and Practice

98.331 Law and Legal Environment

**Requirements for the Major** - A total of 74 semester hours is required for a major in business education. The student must have completed the following courses with a grade of C or better to be considered for certification as a teacher of business subjects:

48.211 Child Psychology

60.201 Field Studies in Education

60.291 Principles of Teaching

90.402 Instructional Strategies and Assessment

90.403 BCIT Field Experience

90.404 Professional Semester in BCIT

90.406 Clinical Studies in BCIT

Choose one of the following two courses:

60.251 Psychological Foundations of Education

48.251 Psychological Foundations of Education

Choose one of the following two courses:

60.393 Social Foundations of Education

60.406 Multicultural Education

90.101 Introduction to Business

90.333 Business Communications

94.221 Office Systems Concepts

94.302 End User Solutions Development

94.330 Telecommunications

94.340 Networking

94.405 Training and Development

**Certification** - Upon completion of the curriculum, receipt of a recommendation from the university and successfully passing the PRAXIS Level I and II exams specified for business computer and information processing certification, students will be issued a Level I certificate by the Pennsylvania Department of Education.

## Office Information Systems (B.S.B.A.)

In addition to 65 semester hours of general education requirements, a total of 63 semester hours is required for a major in office information systems. Elective courses complete the balance of the university's 128-hour requirement for a bachelor's degree. Several specific general education courses are required in this major. They include:

20.101 Composition I

20.201 Composition II

25.103 Public Speaking

40.121 Principles of Economics I

40.122 Principles of Economics II

40.246 Business and Economic Statistics 5

53.118 Matrix Algebra

Choose one of the following two courses:

40.156 Business and Economic Mathematics

53.123 Essentials of Calculus

**Requirements for the Major** - A total of 81 to 84 semester hours is required for a major in office information systems. This total reflects program requirements and general education courses. Required courses include:

90.101 Introduction to Business

90.333 Business Communications and Report Writing

91.220 Financial Accounting

91.223 Managerial Accounting

92.150 Introduction to Information Technology

93.244 Principles of Management

93.481 Business Policies and Strategies

94.221 Office Systems Concepts

94.302 End User Solutions Development

94.330 Telecommunications (spring only)

94.340 Networking Design and Administration (spring only)

94.405 Training and Development in Office Systems (fall only)

94.407 Information and Office Environment Management (fall only)

96.313 Introduction to Corporate Finance

97.310 Marketing: Principles and Practice

98.331 Law and Legal Environment

300- or 400-level business elective with advisor's approval

**Electives and Free Electives** - Students must choose 15 semester hours in elective courses from General Business, Accounting, Computer and Information Systems, Management, Office Information Systems, Finance, Marketing and Business Law.

## Office Information Systems (B.S.B.A.)

The minor in Office Information Systems is designed to provide students majoring in disciplines both within and outside of the College of Business with an exposure to information.computer technologies that are used to support office work and improve employee performance and organizational effectiveness. A total of 18 credits consist of four required courses and two electives.

**Required:**

- 94.221 Office Systems Concepts
- 94.302 End User Solutions Development
- 94.330 Telecommunications (spring only)
- 94.407 Information and Office Environment Management (fall only)

**Electives:**

- 90.333 Business Communications or any 94- departmental courses as approved by advisor

## Business Education (M.Ed.)

**Admission.** Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements for the Master of Education in Business Education:

Official undergraduate transcript with a recommended minimum QPA of 2.8 or higher in 2002-2003, 3.0 or higher in 2003 and thereafter on a 4.0 scale.

Graduate Record Examination results on the general knowledge test with a minimum score of 1300 Current resume to include professional background, education and other experiences.

Letter of intent stating rationale for seeking admission to the program.

Two letters of recommendation from persons who have knowledge of the applicant's academic and professional background. Test of English as a Foreign Language (TOEFL) for international applicants

whose native language is not English, with a minimum score of 550 on paper test and 213 on computer test.

**How to Apply**

**Retention.** Requirements for this program are the same as those for the School of Graduate Studies.

**Graduation.** A minimum of 30 semester hours in graduate-level courses is required. The program consists of five required core courses and five elective courses with an education emphasis.

**Certification.** Students who wish to receive a Level I Professional Teaching Certificate in business, computer and information technology from the Pennsylvania Department of Education must fulfill the following requirements in addition to the M.Ed. in Business Education.

Additional coursework in the areas of education and business as determined by the program coordinator after a review of transcripts; complete the requirements for admission to teacher education; complete a semester of student teaching; and pass the Praxis National Teacher Examination tests for business education.

## Required Courses

- 94.500 Office Systems and Information
- 94.510 Office Systems Applications
- 94.520 Administrative Communications
- 94.530 Telecommunications
- 94.540 Training and Development

**Electives:** Choose five courses from the following (all elective selections must be approved by advisor)

- 60.527 Classroom Management and Effective Discipline
- 60.565 Advanced Foundations of Education or 79.593 Studies in Human Diversity
- 63.540 Intro to Teaching of Reading or 63.546 Reading in the Content Areas
- 70.516 Psychology of Exceptional Individuals
- 79.591 Foundations of Education Research
- 90.581 Seminar in BCIT
- 90.590 Masters Thesis in Business Education
- 94.550 Integrated Office Systems

# Department of Chemistry

## Chemistry (B.A.)

Requirements for the Major for a Bachelor of Arts in Chemistry - In addition to general education requirements of the university, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measurements
- 52.231 Organic Chemistry I
- 52.232 Organic Chemistry II
- 52.281 Introduction to Scientific Literature
- 52.321 Analytical Chemistry I
- 52.322 Instrumental Analytical Chemistry
- 52.361 Physical Chemistry I
- 52.362 Physical Chemistry II
- 54.211 General Physics I
- 54.212 General Physics II
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III

Plus one of the following computer courses:

- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes

## Chemistry (B.S.)

Requirements for the Major (B.S.) - In addition to meeting general education requirements totaling 51-54 semester hours, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measurements
- 52.231 Organic Chemistry I
- 52.232 Organic Chemistry II
- 52.321 Analytical Chemistry
- 52.322 Instrumental Analytical Chemistry
- 52.361 Physical Chemistry I
- 52.362 Physical Chemistry II
- 52.452 Advanced Inorganic Chemistry
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 54.211 General Physics I
- 54.212 General Physics II

Choose one of the following three courses

- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes for Computers

## ACS Certification

Students who want American Chemical Society certification (B.S.-ACS) upon graduation must complete the following additional requirements beyond requirements for the Bachelor of Science:

- 52.281 Introduction to Scientific Literature
- 52.341 Biochemistry I
- 52.492 Independent Study II: Introduction to Research
- 52.493 Independent Study III: Chemical Research

A restricted elective selected from any 300 and 400 -level course in chemistry (except Independent Study) or any approved 300 or 400-level course in mathematics or physics.

## Chemistry - Biochemistry Option (B.S.)

Requirements for the Major - for a B.S. with a biochemistry track: in addition to the general education requirements of the university, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measurements
- 52.231 Organic Chemistry I
- 52.232 Organic Chemistry II
- 52.233 Organic Spectroscopy
- 52.281 Introduction to Scientific Literature
- 52.321 Analytical Chemistry
- 52.341 Biochemistry I
- 52.442 Biochemistry II
- 52.361 Physical Chemistry I
- 54.211 General Physics I
- 54.212 General Physics II
- 53.125 Calculus I
- 53.126 Calculus II
- 53.225 Calculus III

Choose one of the following three courses:

- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes for Computers

Chemistry electives - choose two of the following five courses:

- 52.322 Instrumental Analytical Chemistry
- 52.452 Advanced Inorganic Chemistry
- 52.362 Physical Chemistry II
- 52.492 Introduction to Research
- 52.493 Chemical Research

Required biology courses:

- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics

Choose one of the following seven courses:

- 50.343 Immunology
- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.411 Radiation Biology
- 50.432 Microbial Genetics
- 50.441 Cytogenetics
- 50.472 Cell Physiology

## ACS Certification

Students who want American Chemical Society certification upon graduation must complete the following courses as part of the B.S.-Biochemistry Curriculum:

- 52.322 Instrumental Analytical Chemistry
- 52.362 Physical Chemistry II
- 52.452 Advanced Inorganic Chemistry

## Clinical Chemistry (B.S.)

Required Courses for B.S. in Clinical Chemistry - In addition to 53 semester hours of general education requirements, the following are required:

52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measurements  
52.231 Organic Chemistry I  
52.232 Organic Chemistry II  
52.321 Analytical Chemistry  
52.341 Biochemistry  
52.361 Physical Chemistry I  
50.271 Cell Biology  
50.343 Immunology  
53.125 Analysis I  
53.126 Analysis II  
53.225 Analysis III  
54.211 General Physics I  
54.212 General Physics II  
56.110 Introduction to Computer Science  
52.322 Instrumental Analytical Chemistry is strongly recommended

## Chemistry Minor

The minor in chemistry consists of 19 to 21 semester hours.

A minor in chemistry shall be awarded when a student obtains a 2.0 grade point average in the following prescribed courses:

### Option I

52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measurements  
52.230 Fundamentals of Organic Chemistry  
and three 3- or 4-credit 200, 300, 400 level courses within the Chemistry Department excluding independent research, 52.231 and 52.232

### Option II

52.115 Fundamentals of Inorganic Chemistry  
52.116 Chemical Principles and Measurements  
52.231 Organic Chemistry I  
52.232 Organic Chemistry II  
and two 3- or 4-credit 200, 300, 400 level courses within the Chemistry Department excluding independent research and 52.230

In addition to meeting the grade point average requirement, the student will be expected to meet with his/her minor adviser before scheduling the electives.

# Department of Computer and Information Systems

## Computer and Information Systems (B.S.)

Administered by Computer and Information Systems  
Effective Fall, 2002

Bloomsburg University requires 53 semester hours in general education requirements and 128 semester hours to receive a baccalaureate degree. Computer and Information Systems majors must take 63 semester hours of specific courses and restricted electives and the balance of courses to meet the 128-hour requirement come from electives. Required courses include:

- 20.101 English Composition I
- 20.201 English Composition II (or 20.104 Honors Composition)
- 25.103 Public Speaking
- 53.141 Introduction to Statistics or 53.241 Probability and Statistics
- 40.121 Principles of Economics I
- 40.122 Principles of Economics II

Choose one of the following two combinations:

- 53.123 Essentials of Calculus and 53.118 Applied Matrix Algebra or

- 53.125 Analysis I and 53.126 Analysis II

Choose one of the following two combinations:

- 91.221 Principles of Accounting I and 91.222 Principles of Accounting II or
- 91.220 Financial Accounting and 91.223 Managerial Accounting

Required CIS Courses:

- 92.140 Introduction to Computer and Information Science
- 92.141 Introduction to Business Information System Development
- 92.240 Introduction to Programming I
- 92.241 Introduction to Programming II

- 92.351 Systems Analysis and Design
- 92.346 Data and Information Structures
- 92.362 COBOL
- 92.354 Data Base Processing Systems
- 92.358 Data Communication Systems
- 92.460 Advanced Systems Development I
- 92.461 Advanced Systems Development II

### Elective Courses

Two CIS courses at the 300 or 400 level. Information technology courses offered by other departments can be used with approval of the CIS chairperson.

While an internship in CIS is not required for a degree, students are strongly encouraged to take 92.432

Internship in Computer and Information Systems. This course, which may be taken for a maximum of nine semester hours, can be counted only as a free elective.

## Minor in Computer and Information Systems

Administered by Department of Computer and Information Systems

Effective Fall, 2002

The minor in Computer and Information Systems consists of 20 credits. The following courses are required:

- 92.140 Introduction to Computer and Information Science
- 92.141 Introduction to Business Information System Development
- 92.240 Introduction to Programming I
- 92.241 Introduction to Programming II
- 92.351 Systems Analysis and Design

A three-credit CIS elective at the 300 or 400 level

A minimum QPA of 2.0 in the minor is required.

# Department of Communication Studies and Theatre Arts

## Communication Studies (B.A.)

Among 53 semester hours of general education requirements of the university, Communication Studies majors must take:

25.103 Public Speaking

Core requirements: A total of 9 semester hours are required from the following:

25.104 Interpersonal Communication

25.207 Investigating Communication

25.220 Intercultural Communication (diversity)

**Areas of Concentration:** All majors are required to take five of six courses in their chosen area of concentration, which must include the appropriate required course for that area, plus a minimum of one course from each of the other two areas of concentration, for a total of 21 semester hours. Students may take additional courses as free electives.

### Interpersonal Relationship Management

25.215 Communication Theory (required)

25.309 Gender Issues in Communication (diversity)

25.313 Communication and Conflict

25.419 Communication in the Family

25.425 Communication in Relationships

25.426 Leadership and Team Building

### Leadership and Social Influence

25.205 Understanding Social Influence (required)

25.315 Persuasion

25.321 Argumentation

25.406 Evaluating Communication

25.413 Community Leadership

25.417 Evaluating Media Influence

### Applied Communication

25.210 Organizational Communication (required)

25.306 Computer Applications for Professional Communicators

25.307 Communication for Business Professionals

25.407 Interviewing

25.423 Communication Training in Organizations

25.424 Corporate Communication

**Capstone Experience:** The capstone experience is required of all students in the major regardless of the area of concentration. After completing 80 or more semester hours, students with a minimum 2.5 cumulative grade point average are eligible to register for an internship that will serve as their capstone experience. Students may register for 3 to 12 internship semester hours. Additional internship credit beyond the required 3 hours cannot be substituted for other coursework, but would be considered as electives. Students academically ineligible for Internship in Communication should consult their academic advisor to arrange a suitable alternative experience, such as additional specialized coursework.

25.497 Internship in Communication

### Elective Courses:

25.108 Forensics Practicum

25.206 Oral Interpretation

25.218 Discussion

25.470 Independent Study

25.492, 25.493, 25.495 Advanced Studies in Communication

25.494 Advanced Studies in Communication (diversity)

## Minor in Communication Studies

Students who hold a minimum 3.0 cumulative grade point average on a minimum of 15 semester hours are eligible for admission to the minor. Students must maintain the minimum 3.0 cumulative grade point average to continue study for a Communication Studies minor. Students who do not maintain the required grade point average will be put on probation for one semester during which they must regain the required grade point average.

General Education Requirement:

25.103 Public Speaking

**Core Course Requirements:** A total of 9 semester hours are required from the following:

25.104 Interpersonal Communication

25.207 Investigating Communication

25.220 Intercultural Communication (diversity)

**Areas of Concentration:** Choose one course from each of three areas of concentration.

### Interpersonal Relationship Management

25.215 Communication Theory

25.309 Gender Issues in Communication (diversity)

25.313 Communication and Conflict

25.419 Communication in the Family

25.425 Communication in Relationships

25.426 Leadership and Team Building

### Leadership and Social Influence

25.205 Understanding Social Influence

25.315 Persuasion

25.321 Argumentation

25.406 Evaluating Communication

25.413 Community Leadership

25.417 Evaluating Media Influence

### Applied Communication

25.210 Organizational Communication

25.306 Computer Applications for Professional Communicators

25.307 Communication for Business Professionals

25.407 Interviewing

25.423 Communication Training in Organizations

25.424 Corporate Communication

## Theatre Arts

### General Education

The following course is required for inclusion in the student's course of study as part of the Group A distribution requirement:

26.102 Introduction to Theatre

The following courses from the University's general education requirements are strongly recommended for inclusion in the student's course of study:

- 25.103 Public Speaking
- 20.363 Shakespeare
- 20.377 Modern Drama
- 30.101 Introduction to Art
- 35.101 Music Listening
- 46.200 Principles of Cultural Anthropology

#### Core Requirements For All Majors

The core curriculum is designed as a sequence of courses which introduce and investigate the theories and history of theatre and dramatic literature providing a solid background for advanced studies in the student's area of emphasis. It also provides a vehicle for planning and assessing each individual's progress as an artist, scholar, and technician. These courses are required of all majors, regardless of area of emphasis.

- 26.101 Career Seminar: A Theatre Life in Bloom
- 26.108 Theatre Practicum
- 26.202 Understanding Plays: Script Analysis
- 26.215 History of Theatre
- 26.270 Fundamentals of Theatre Design
- 26.325 History of Theatre II
- 26.416 Modern Theatre
- 26.401 Career Seminar: A Life in the Theatre

### Areas Of Emphasis

**Performance** - The Performance area of emphasis is provided for students who wish to pursue advanced undergraduate studies as an actor or director. The curriculum offers a sequence of courses which guide the student to augment his or her own abilities by examining and applying techniques and methods of past and current masters. With these explorations, the student is encouraged to develop independently as a critical thinker and risk-taker and as a collaborative creative artist.

- 26.112 Fundamentals of Acting
- 26.200 Voice and Movement
- 26.312 Intermediate Acting
- 26.411 Play Directing
- 26.412 Advanced Acting
- 26.492 Seminar in Performance

One additional course from the Technical/Design Emphasis listed below

- 05.225 Beginning Ballet
- 35.203 Class Voice

**Design Technology** - The Design Technology area of emphasis is provided for students who wish to pursue advanced undergraduate studies as scenic, costume, and lighting designers and technicians. The curriculum offers a

sequence of courses which examines and applies techniques of design concepts in each major area as well as construction and execution for stage production. With these explorations, the student is encouraged to develop independently as a critical thinker and risk-taker and as a collaborative creative artist.

- 26.211 Theatre Production
- 26.277 Costume Construction
- 26.311 Scene Design
- 26.314 Stage Light-Theory
- 26.377 Costume Design
- 26.491 Seminar in Tech. Theatre and Design
- and one other design course

One additional course from the Performance Emphasis listed above

- 32.111 Drawing
- 54.180 Computer Aided Design and Engineering Graphics

**Integrated Theatre Studies** - Integrated Theatre Studies is provided for students who wish to continue the broader course of studies begun in the core curriculum and who wish to pursue advanced studies in each area of production. This option is especially appropriate for students who may wish to pursue careers in stage or theatre management, educational theatre, or theatre for youth. This curriculum offers courses which require theoretical and practical experience in all areas of the discipline.

- 26.219 Children's Theatre
- 26.321 Theatre and Stage Management

Two additional courses each from the Performance and Design/Technical Emphases listed above

One upper level course (300 or 400 level) selected from either Performance or Design

### Minor In Theatre Arts

Preparation for a minor in Theatre Arts requires a total of 22 credits, including study in each basic category of the discipline: theory/criticism, history, performance, technical crafts, design, and practical application. The student may also study in additional areas of his or her own choosing. All required courses are currently offered in the division's program of study. The requirements are as follows:

- 26.102 Introduction to Theatre
- 26.108 Theatre Practicum
- 26.112 Fundamentals of Acting or 26.411 Play Directing
- 26.211 Theatre Production or 26.277 Costume Construction
- 26.215 History of Theatre
- 26.341 Fundamentals of Theatre Design
- Two other courses selected from Division's curriculum

# Department of Developmental Instruction

The Department of Developmental Instruction provides courses and supportive services available to all students of the University. These services and programs are designed to assist students in achieving their full potential.

The developmental courses are designed to help students improve skills in reading, writing, mathematics, study skills, science and ESOL. Content courses carry graduation credit and developmental courses earn institutional credit. The Act 101/EOP Program provides access and support for students who have traditionally been under-represented in higher education. Approximately half of the students enrolled in this program are minority group members; sixty percent are women and 20 percent are older than the traditional college student.

University Tutorial Services offers free peer tutoring in a variety of courses and is open to all undergraduate students enrolled at the University.

## Courses Offered

- 01.001: Reading I (summer only)
- 01.025: Reading II
- 01.041 Writing I (summer only)
- 01.060: Writing II
- 01.080: Introductory Algebra
- 01.090: Intermediate Algebra
- 01.095: Introductory Science (summer only)
- 01.099: Intensive Seminar in ESOL (summer only)
- 01.100 College Study Skills (summer only)
- 01.120: College Reading and Study Skills (carries 3 elective credits toward graduation)

# Department of Early Childhood and Elementary Education

## Early Childhood Education (B.S.Ed.)

In addition to 54 semester hours of general education requirements, early childhood education majors must take 74 hours of professional education and early childhood education specialization courses to satisfy the university's 128-hour requirement for a bachelor's degree. Requirements for Early Childhood Education (N-K-3) develop knowledge of the nature of the child, the nature of the school and center, the learning process, general methods of teaching and methods of teaching particular subjects and to provide student teaching experience. A total of 65 semester hours is taken in required courses. None may be taken on a pass/fail basis. An area of concentration is optional. No free electives are available for this program.

- 60.201 Field Studies in Education I
- 60.204 Educational Computing and Technology
- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations
- 60.291 Principles of Teaching
- 60.301 Field Studies in Education II
- 60.311 Classroom Measurement and Assessment or 79.301 Teaching, Learning and Assessment in Elementary School
- 60.393 Social Foundations of Education or 60.406 Multicultural Education
- 60.494 Student Teaching (first experience)
- 60.495 Student Teaching (second experience)

- 62.121 Introduction to Early Childhood Education
- 62.302 Teaching Science in the Elementary School
- 62.304 Teaching Environmental Education in the Elementary School
- 62.310 Teaching Fine Arts in the Elementary School
- 62.322 Seminar in Learning Experiences with Young Children
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Inclusionary Practices for Literacy
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II
- 60.393 Social Foundations of Education or 60.406 Multicultural Education

**Elective Courses** - A minimum of 6 semester hours is taken in elective courses. None of these courses may be taken on a pass/fail basis.

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School
- 20.384 Literature for Children

- 30.205 Children's Art
- 35.320 Music in Elementary School
- 60.427 Classroom Management and Effective Discipline
- 35.204 Class Piano
- 35.320 Music in the Elementary School
- 62.496 Practicum in Early Childhood and Elementary Education

- 62.376 Language Experiences for Children
- 79.312 Internship in Education (1 to 3 semester hours only in this area)

## Elementary Education (B.S.Ed.)

In addition to 54 semester hours of general education requirements, elementary education majors take 62 semester hours of professional education. The balance of the university's 128-hour requirement for a bachelor's degree comes from elective courses. The courses required for the major are intended to develop knowledge of the nature of the child, the nature of the school, the learning process, general methods of teaching and methods of teaching particular subjects and to provide student teaching experience. A total of 53 semester hours is taken in required courses and nine in education electives. None may be taken on a pass/fail basis. An area of concentration is optional.

- 60.201 Field Studies in Education I
- 60.204 Educational Computing and Technology
- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations
- 60.291 Principles of Teaching
- 60.301 Field Studies in Education II
- 60.311 Classroom Measurements and Assessment
- 60.393 Social Foundations of Education or 60.406 Multicultural Education
- 62.494 Student Teaching: First Experience
- 60.495 Student Teaching: Second Experience
- 62.302 Teaching Science in the Elementary School
- 62.304 Environmental Education for the Elementary School Teacher
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Inclusionary Practices for Literacy
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 60.393 Social Foundations of Education or 60.304 Multicultural Education

**Elective Courses** - No elective courses may be taken on a pass/fail basis. Students select a minimum of 12 semester hours from the following courses:

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School
- 35.320 Music in the Elementary School
- 20.384 Literature for Children

- 30.205 Children's Art
- 60.427 Classroom Management and Effective Discipline
- 62.121 Introduction to Early Childhood Education
- 62.322 Seminar in Learning Experiences with Young Children
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II
- 62.496 Practicum in Early Childhood Education/Elementary Education
- 79.312 Internship in Education (I to 3 semester hours only in this area)

## Dual Certification

### Early Childhood and Elementary Education

In addition to a total of 54 semester hours in general education courses, 65 hours of course requirements for dual certification develop knowledge of the nature of the child, the nature of the school, the learning process, general methods of teaching, methods of teaching particular subjects and to provide student teaching experience. None may be taken on a pass/fail basis. An area of concentration is optional. The balance of the university's 128-hour requirement for a bachelor's degree come from elective courses.

- 60.201 Field Studies in Education I
- 60.204 Educational Computing and Technology
- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations of Education
- 60.291 Principles of Teaching
- 60.301 Field Studies in Education II
- 60.311 Classroom Measurement and Assessment or 79.301 Teaching, Learning and Assessment in Elementary School
- 60.393 Social Foundations of Education or 60.406 Multicultural Education
- 60.494 Student Teaching: First Experience
- 60.495 Student Teaching: Second Experience
- 62.121 Introduction to Early Childhood Education
- 62.302 Teaching Science in the Elementary School
- 62.304 Environmental Education in the Elementary School
- 62.310 Teaching Fine Arts in the Elementary School
- 62.322 Seminar in Learning Experiences with Young Children
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Inclusionary Practices
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II
- 62.497 Teaching Literacy and Literature in Diverse Classrooms
- 60.497 Teaching in Education: First Experience
- 60.498 Teaching in Education: Second Experience

**Elective Courses** - A minimum of 9 to 12 semester hours is taken in elective courses. None of these courses may be taken on a pass/fail basis.

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School
- 20.384 Literature for Children
- 30.205 Children's Art
- 35.320 Music in the Elementary School
- 60.427 Classroom Management and Effective Discipline
- 62.496 Practicum in Early Childhood and Elementary Education
- 79.312 Internship in Education (I to 3 semester hours only in this area)

## Early Childhood Education (M.S.)

**Admission.** The following admission requirements, which apply to both the Master of Science in Early Childhood Education program and to the master's program with an Early Childhood Education Certification, must be met in addition to the general admission requirements for the School of Graduate Studies. Undergraduate work need not be in a specific field of study.

An interview and a review of academic credentials are required. Applicants who lack an undergraduate QPA of 2.5 will be admitted on a provisional basis.

All applicants will take the Miller Analogies Test. A minimum score of 30 is required. Waivers may be granted to graduate students that score lower but have excellent academic records.

### Certification Requirements.

Three recommendations from any of the following persons: undergraduate or graduate faculty, direct-line supervisors, administrators, and other individuals who are familiar with the applicant's academic abilities and personal qualities. Recommendation forms are available from the program coordinator for early childhood education.

Written completion of a 10-day field experience. Forms are available from the observation/program coordinator.

Written completion of a 14-day participation experience. Forms are available from the program coordinator.

Passing and/or remediation of speech and hearing tests, and vision tests. TB tests are required. Forms are available from the program coordinator.

Passing the National Teacher Examination core battery and the specialty area of early childhood education.

**Retention.** Students must maintain a QPA of 3.0 throughout their program. Courses in which a grade of B- or lower is obtained must be repeated with a grade of B or higher. Nine graduate credits may be transferred into the program.

State Police checks (Criminal, Act 34 and Abuse, Act 151) required by the Department of Health and Welfare and the Bureau of Certification must be obtained prior to student teaching in private and public schools, Head Start programs, and day care centers in Pennsylvania.

All students will take and pass a comprehensive examination, which is administered when they have completed 12 to 15 semester hours of graduate work. The examination consists of written and oral requirements. An appointment is made with the program coordinator.

**Graduation.** The Master of Science in Early Childhood program consists of 30 semester hours; 12 additional semester hours in course work and practicum are required for the Level I Certification, N, K-3. Students must complete 6 semester hours in foundation courses, 18 to 30 semester hours in early childhood education core courses, and 6 semester hours in related studies courses.

## Required Courses

Students seeking a Master of Science in Early Childhood Education must complete 30 semester hours with a 3.0 QPA. Students seeking a Master of Science in Early Childhood Education with N, K-3 certification must complete 42 semester hours with a QPA of 3.0.

A departmental paper, thesis, comprehensive project, or the comprehensive examination is required for completion of the degree program. Specific guidelines are available from the program coordinator. All papers must be written following the American Psychological Association (APA) style guide. A five chapter format is preferred.

All program requirements must be completed within six years after admission into the program. Students are required to complete their programs within four years after passing their comprehensive exam. Extensions may be granted in certain situations. Students who fail to enroll and complete a course within a two-year period are placed in an inactive file. Inactive students must reapply for admission, retake the comprehensive examination. Courses older than six years will not meet the degree requirements. All deficiencies, tests, if applicable, monetary and academics, must be satisfied before the degree can be granted.

### I. Foundation Courses (6 credits required)

- 60.501. Major Philosophies of Education
- 60.502 School and Society
- 60.512 Educational Media and Software (required by all N, K-3 - other computer courses may be substituted based upon the graduate student's skills and interests.)
- 60.514 Home, School and Community Relations
- 60.527 Classroom Management and Effective Discipline
- 79.501 Teaching, Learning and Assessment in Elementary Classrooms

Other courses may be selected based upon the needs, educational background or deficiencies of each individual student. Approval of the coordinator for ECE and the dean of the graduate school is required.)

**II. Early Childhood Education Studies** (18 credits required for M.S. in Early Childhood Education; 30 credits required for M.S. in Early Childhood Education with N, K-3 Certification).

- 62.510 Methods and Materials in Early Childhood Education I
- 62.520 Methods and Materials in Early Childhood Education II
- 62.522 Curriculum Trends in Early Childhood Education
- 62.523 Practices in Teaching the Young Child
- 62.590 Current Research and Development in Early Childhood Education
- 62.591 Learning and Development of the Young Child
- 62.592 Identification and Prescription of the Needs of Young Children
- 62.593 Organization and Administration of Educational Programs for Young Children
- 62.594 Practicum in Early Childhood Education - 6 credits,

one semester

### III Related Courses (6 credits required)

- 60.534 Creativity for Teachers
- 62.510 Methods and Materials in Early Childhood Education I
- 62.520 Methods and Materials in Early Childhood Education II
- 62.251 Elementary School Curriculum
- 62.524 Knowledge and the Curriculum
- 62.525 Current Practices in Elementary School Science
- 62.526 Methods and Materials in Elementary School Science and Mathematics
- 62.527 Social Studies in the Elementary School
- 62.528 Language Arts in the Modern School
- 62.529 Literature for Children in Elementary Grades
- 62.530 Awareness of Environmental Education Problems for the Elementary School
- 62.531 Environmental Education - Activities and Materials for the Elementary School
- 62.533 Values Clarification in the Elementary School
- 62.537 Methods and Materials in Elementary School Language Arts and Social Studies
- 62.539 Current Topics in Elementary Education
- 62.581 Independent Topics in Elementary Education
- 62.583 Seminar in Elementary Education
- 62.595 Individualized Instruction: Principles and Practices for the Classroom
- 63.540 Introduction to the Teaching of Reading
- 63.541 Diagnosis and Prescription in Reading
- 63.543 Reading Clinic I
- 63.548 Reading Instruction for the At-Risk Student
- 63.549 Teaching Reading to the Hearing Impaired/Language Handicapped Child
- 63.550 Literature, Literacy and Culture
- 79.599 Thesis (3-6 credits)

## Elementary Education (M.Ed.)

**Admission.** Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following additional requirements:

Meet with the program coordinator to clarify program requirements, review academic records and outline a plan for completing degree work. Students must take the Miller Analogies Test (minimum score of 30). Waivers may be granted to students who score lower but have excellent academic records. Students will be required to complete five days of classroom observation and 14 days of on-site, in-the-classroom participation working with a teacher(s). Students will also complete and pass a screening examination, have three letters of recommendation on file, complete Act 34 and 151 clearances and possess recent TB test results.

**Retention.** Students must maintain a minimum QPA of 3.0 throughout their program. Courses in which a B- or lower are obtained must be repeated with a grade of B or higher. Nine graduate credits may be transferred into the program. Students must complete at least six to nine credits per calendar year (July 1 to June 30 of the preceding year) for retention in the master's program.

**Graduation.** A minimum of 51 semester hours is required to complete this master's program.

## Required Courses

Instructional Level I Teaching Certificate in Elementary Education (K-6)

### Core courses (15 credits)

60.501 Major Philosophies of Education or 60.584 Curriculum Theory, Design and Development

Choose one of the following four courses:

60.504 Technology for Teachers

60.512 Educational Media and Software

60.516 Computers and Curriculum

60.522 Internet for Teachers

60.506 Multicultural Education or 79.593 Human Diversity

60.514 Home, School and Community Relations or 60.502 School and Society

79.590 Research in Education or 62.590 Current Research and Development in ECE

### Specialty Core (30 credits)

62.521 Elementary School Curriculum or 62.524 Knowledge and the Curriculum in the Elementary School

62.530 Awareness of Environmental Education

62.526 Methods and Materials in Science and Mathematics

62.527 Social Studies in the Elementary School

62.528 Language Arts in the Modern Elementary School

62.537 Methods and Materials in Language Arts and Social Studies

60.533 Measurement and Evaluation in the Elementary School or 79.501 Teaching, Learning, Assessment

63.540 Introduction to the Teaching of Reading

70.506 Introduction to Early Intervention or Introduction to Exceptional Individuals

Elective

### Practicum (6 credits)

62.594 Practicum - Students may have one or two teaching experiences: primary and intermediate, depending on their

levels of expertise or certification. This may result in one eight-week experience or two eight-week experiences. Each student will develop a practicum proposal and have it reviewed by the program coordinator a semester prior to student teaching. A student may elect to take 12 credits at the undergraduate level if student teaching has not been previously taken. In either situation, the graduate student must prepare a plan for the practice of teaching portion of their program.

All students seeking a master's degree in elementary education with instructional level I teaching certificate (K-6) are required to demonstrate competency in writing skills by completing an in-depth research paper. This may take the form of a departmental paper or thesis. The research paper must follow the style format of the publication manual of the American Psychological Association (APA). A five-chapter format is preferred.

Departmental papers must be read and approved by the student's adviser and one other member of the graduate faculty. A thesis may be completed as a six-credit elective option or additional course work beyond the 51-credit minimum, making the candidate's total graduate program equal 57 credits. All theses must meet the requirements of the School of Graduate Studies.

The Pennsylvania Department of Education requires all certification applicants to pass the Praxis Series of Examinations (NTEs) for certification. The Praxis exams are given three times a year. It is the graduate student's responsibility to register, complete and earn a passing score on the examinations.

All program requirements are to be completed within six years after admission into the program. Courses older than six years will not meet degree requirements. All deficiencies, tests if applicable, monetary and academic requirements must be satisfied before the degree can be granted.

# Department of Educational Studies and Secondary Education

## Secondary Education (B.S.Ed.)

Some courses which satisfy the university's general education requirement are included in the course listings for the individual areas of specialization under secondary education.

Requirements for the Major Secondary Education (7-12) include a total of 35 semester hours in required core courses, plus courses specified for various specializations. Students are required by Pennsylvania Department of Education to take six credits of math and six credits of English literature as part of their general education requirements. Students should consult their adviser to plan a course of study. The balance of courses to satisfy the university's 128-hour requirement for a bachelor's degree, come from free electives.

60.201 Field Studies in Education I

60.204 Educational Computing and Technology or an advanced undergraduate course in educational technology

60.251 Psychological Foundations of Education or 48.251 Psychological Foundations of Education

60.291 Principles of Teaching

60.301 Field Studies in Education II

60.311 Classroom Measures and Assessment

60.393 Social Foundations of Education or 60.406 Multicultural Education

60.497 Teaching in Education: First Experience

60.498 Teaching in Education: Second Experience

65.374 Teaching Reading in the Academic Subjects

Students are required to take a secondary methods course corresponding to their major from the following:

65.351 Teaching Communication in the Secondary School

65.352 Teaching Mathematics in the Secondary School

65.353 Teaching Science in the Secondary School

65.355 Teaching Social Studies in the Secondary School

65.358 Teaching Foreign Language in the Secondary School

## Curriculum and Instruction (M.Ed.)

Administered by Educational Studies and Secondary Education Effective Fall, 2002

**Admission** -Applicants must satisfy the general admission requirements for the School of Graduate Studies. In addition, applicants to this degree program must:

Have a 3.0 undergraduate QPA.

Submit scores on the PRAXIS in your subject matter field or GRE or MAT scores.

Students who do not meet the minimum requirements for admission may be admitted non-degree upon the approval of the Graduate Advisory Board. The non-degree designation must be eliminated after completion of 12 semester hours in which a QPA of 3.0 or better is earned. No C's may be earned during this period.

Schedule an interview with the program coordinator, Dr. Mary Harris, to clarify program requirements, discuss goals, evaluate academic records, and outline a long-range program.

**Retention.** Graduate students must take a minimum of 9 semester hours per calendar year and a QPA of 3.0 or higher must be maintained. Students not taking a minimum of 9 semester hours per calendar year will be considered inactive after two years.

Only courses with a minimum grade of C are considered applicable to this program.

**Transfer Credits.** Up to nine semester hours from accredited institutions, other than Bloomsburg University may, upon approval, be accepted toward completing the degree requirements of this program. However, no courses will be transferred in which a grade less than a B was earned. Pass/fail grades are not acceptable. How to Apply

**Graduation.** Graduate students complete 30 semester hours of approved course work, complete 6 semester hours for the thesis or 36 semester hours of approved course work and a departmental paper or an instructional project, and apply for graduation. All deficiencies, monetary and academic, must be satisfied before the degree can be granted.

## Program Completion and Graduation

A candidate for a master's degree must complete the student portion of the Application for Graduation, sign the form and submit it to your program coordinator for verification of degree requirements. After approval, the application is submitted to the Registrar by the following deadlines for each graduation:

May graduation - March 15

August graduation - April 1

December graduation - October 15

The form must be received in the Registrar's Office on or before those dates. After the deadlines, names will not appear in the commencement program and the diploma may be delayed. The form is available in the Office of Graduate Studies, Registrar's Office, or the office of your program coordinator.

## Registration for Classes

You may register for classes by emailing your program coordinator at mharris@bloomu.edu or you may complete the Graduate Scheduling Form found in the back of the School of Graduate Studies Class Schedule booklet and submitting it to your program coordinator.

## Graduate Assistantships

A limited number of graduate assistantships are available each academic year. The application for a graduate assistant can be obtained in the Office of Graduate Studies.

## Required courses

### Program of Study: (no certification)

79.593 Studies in Human Diversity

60.565 Advanced Foundations of Education

- 60.584 Curriculum and Instructional Theory, Design and Development
- 79.591 Research in Education
- Liberal Arts Curriculum (6 credits)
- Individualized Curriculum (12 credits)
- 79.599 Thesis (6 credits) OR a departmental paper and six additional credits of course work

#### **Program of Study: (Certification Track)**

A minimum of 36 credits are required for the certification track of the M.Ed. in Curriculum and Instruction. The following courses are required:

- 60.527 Classroom Management and Effective Discipline
- 60.561 Measurement and Evaluation in Secondary Schools
- 60.565 Advanced Foundations of Education
- 60.584 Curriculum and Instruction Theory, Design and Development
- 65.538 Curriculum Development and Instructional Strategies in the Middle and Junior High Schools
- 65.597 Practicum (6 credits)
- 70.516 Psychology of Exceptional Individuals
- 79.591 Research in Education
- 79.593 Studies in Diversity
- Any 500 level Educational Technology course such as:
  - 60.504 Computers and Teaching
  - 60.515 Integrating Technology in Teaching
  - 60.516 Computers and the Curriculum
  - 60.512 Computer Media
  - 60.522 Internet for Teachers

Elective

Admission to Certification

Students are required to

Take the PRAXIS test in their subject matter field, and the Core Battery tests before registering for more than 12 credits in the program.

Possess a cumulative grade point average of 3.0.

Obtain current Pennsylvania Qualifying Scores for the Praxis 1: Academic Skills Assessments:

Session/Test Code:

10710 PPST Reading

20720 PPST Writing

10730 PPST Mathematics (calculators prohibited)

Submit the results from a current Tuberculosis Screening administered within the last two years.

Possess professional liability insurance. The policy shall be a minimum of \$1,000,000 per claim and \$3,000,000 aggregate. This is a state requirement which can be satisfied through membership

in PSEA.

Obtain current ACT 34 (Request for Criminal Record Check) and ACT 151 (Child Abuse History Check) clearances. Clearances are valid for one year from date issued on the form.

## **Student Teaching Practicum**

Students need to sign up for student teaching one year in advance. It is the student's responsibility to attend signup meetings held in January and September. Meeting dates will be posted in the Student Teaching Placement Office located in 1211 McCormick. Eligibility for Student Teaching packets will be discussed at that time. In order to register for the required practicum, a full semester of student teaching, you must have completed all the requirements for admission to certification.

Supervisory Certificate Programs

Administered by: Department of Educational Studies and Secondary Education

Effective Fall, 2000

Admission

Candidates must provide proof of a valid Pennsylvania teaching certificate and must provide evidence of at least five years of satisfactory teaching experience. (Experience on an emergency certificate or an intern certificate is not acceptable.)

Requirements

Supervisory (N, K-12). This program is designed for the person with primary responsibility supervising and directing the activities of professional and non-professional employees in given fields.

Candidates must complete a minimum of 36 semester hours at the graduate level from seven areas of competency:

Curriculum and instruction-theory, design and development

Curriculum and early childhood, elementary, middle and secondary education

Research Supervision, management and administration

Group dynamics

School law and finance

Practicum - field experience

## **Subject Specialist:**

|                                  |                   |
|----------------------------------|-------------------|
| Curriculum and Instruction ..... | 36 semester hours |
| Early Childhood Education .....  | 30 semester hours |
| Elementary Education .....       | 30 semester hours |
| Reading .....                    | 30 semester hours |
| School Health Service .....      | 30 semester hours |
| Secondary Education .....        | 30 semester hours |
| Communication .....              | 30 semester hours |
| Foreign Languages .....          | 30 semester hours |
| Mathematics .....                | 30 semester hours |
| Science .....                    | 30 semester hours |
| Social Studies .....             | 30 semester hours |
| Special Education .....          | 21 semester hours |

## **Prerequisites for Admission:**

Certification in the area for which supervisory certification is sought. At least five years of satisfactory teaching experience in the field for which certification is sought. (Valid certificate in the field is required)

# Department of English

## English (B.A.)

A total of 42 semester hours is required for a major in English. No course may be used to satisfy more than one requirement. With the addition of general education requirements and elective courses of at least 32 semester hours, the 128-hour requirement for a baccalaureate degree is satisfied. Requirements are:

### Core

- 20.203 Approaches to Literary Study
  - 20.226 European Literature I
  - 20.236 American Literature I
  - 20.246 British Literature I or 20.247 British Literature II
  - 20.256 Non-Western Literature I or 20.257 Non-Western Literature II
  - 20.363 Shakespeare
  - 20.488 Seminar or 20.489 Seminar
  - 20.492 Literary Theory and Criticism or 20.493 Bibliography and Literary Research
- Choose one course from the following four courses:

- 20.311 Structure of English
- 20.312 History of the English Language
- 20.411 Modern Linguistic Theory
- 20.413 Language in American Society

### American Literature

Choose two courses from the following seven courses:

- 20.334 Studies in American Literature
- 20.335 Studies in American Literature
- 20.431 American Romanticism
- 20.432 American Realism
- 20.433 American Modernism
- 20.434 Contemporary American Literature
- 20.436 African-American Literature

### British Literature

Choose one course from the following nine courses:

- 20.341 Medieval Literature
- 20.342 The Renaissance
- 20.344 The Neoclassical Age
- 20.345 Romantic and Victorian Literature
- 20.346 Studies in British Literature
- 20.347 Studies in British Literature
- 20.364 Chaucer
- 20.370 The English Novel
- 20.375 Renaissance Drama

### Writing Genre

Choose one course from the following 11 courses:

- 20.301 Creative Writing: Fiction
- 20.302 Creative Writing: Non-Fiction Prose
- 20.303 Creative Writing: Poetry
- 20.306 Theory and Practice of Writing
- 20.370 The English Novel
- 20.372 Modern Novel
- 20.374 Short Story
- 20.375 Renaissance Drama
- 20.377 Modern Drama
- 20.379 Modern Poetry
- 20.391 Literature and Film

### Electives

Choose two other 300-400 level courses.

## Minor in English

The minor in English consists of 18 semester hours: 9 hours from courses on the 100 or 200 level except

20.101, 20.104, 20.200 and 20.201; 9 hours from courses on the 300 or 400 level and approval of the department chair.

# Department of Exceptionality Programs

## Interpreting (B.S.)

In addition to 54 semester hours in general education requirements, the major in interpreting requires 18 semester hours in American Sign Language training and 36 semester hours in interpreting; the remaining 20 semester hours required for a bachelor's degree come from elective courses. The following course sequence (titles and content) is in the process of revision. A full description may be received by contacting the program coordinator.

American Sign Language training:

- 75.153 Introduction to Sign Language
- 75.154 American Sign Language I
- 75.155 American Sign Language II
- 75.254 The Deaf Culture
- 75.255 American Sign Language III
- 75.256 American Sign Language IV

Interpreting requirements:

- 25.103 Public Speaking
- 25.215 Communication Theory
- 72.152 Introduction to Communication Disorders
- 72.200 Introduction to Audiology
- 75.201 Interpreting in the Educational Setting
- 75.301 Introduction to Interpreting for the Deaf
- 75.302 Interpreting English to American Sign Language
- 75.303 Transliterating English to Sign Language
- 75.304 Oral Interpreting/Transliterating
- 75.401 Sign to Voice Interpreting
- 75.415 Practicum in Interpreting
- one additional course from the Code 25 course listing.

Elective Courses are to be chosen with the approval of an adviser and as required to meet the university's graduation requirement of 128 semester hours. Students may choose from the following free electives:

- 20.111 Language and Social Interaction
- 20.411 Modern Linguistic Theory
- 26.112 Fundamentals of Acting
- 28.220 Ethics
- 28.290 Medical Ethics
- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 45.231 Marriage and Family
- 46.101 Introduction to Anthropology
- 46.200 Principles of Cultural Anthropology
- 46.440 Language and Culture
- 48.101 General Psychology
- 48.160 Basic Statistics
- 48.211 Child Psychology
- 48.321 Psychological Tests and Measurements
- 70.101 Introduction to the Exceptional Individual
- 72.460 Psycholinguistics
- 74.260 Interpreting in the Educational Setting

**Area of Concentration in Education of Deaf/Hard of Hearing** - Interpreting students may choose to take an area of concentration in education of the deaf/hard of hearing. The undergraduate curriculum in education of the deaf/hard of hearing lays the foundation for the training and education needed to prepare classroom teachers and itinerant hearing therapists to work in educational settings with deaf/hard of hearing children and adults. Students supplement the curriculum for their majors with an area of concentration in education of the deaf/hard of hearing that requires a minimum of 18 semester hours.

## Special Education (B.S.Ed.)

**General Education Requirements** - The university requires 53 hours of general education requirements, some of which are specifically required for this major. Core courses designated by the department as

applicable to the general education requirements may be elected in partial fulfillment of that requirement. The following general education courses are required for completion of the program:

- 20.101 Composition I and 20.201 Composition II (or any of the writing intensive literature courses) Those testing out of 20.101 or 20.201 will schedule 20.104 Honors Composition and are required to take only six of the nine hours required under Communication 25.103 Public Speaking or 25.104 Interpersonal Communication
  - 48.101 General Psychology
  - 48.210 Life-Span Psychology
  - 50.101 General Biology I
  - 05.321 First Aid and Safety
  - 53.141 Introduction to Statistics or 48.160 Basic Statistics
- To meet state certification requirements, special education majors must have six credits of mathematics, composition and an American or English literature course.

**Requirements for the Major** - A total of 75 semester hours is required for a major in special education including professional education courses, those required for special education and electives.

Professional Education courses include:

- 60.251 Psychological Foundations in Education or 48.251 Psychological Foundations in Education
  - 60.393 Social Foundations of Education or 60.406 Multicultural Education
  - 62.302 Teaching of Science in the Elementary School or 62.390 Teaching Social Studies in the Elementary School
  - 62.371 Teaching Reading in the Elementary School
  - 62.398 Teaching Mathematics in the Elementary School
- Choose one of the following four courses:

- 62.373 Diagnostic and Inclusive Practices

- 74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing (reserved for Deaf/Hard of Hearing area of concentration only).
- 60.375 Teaching the Reluctant Reader
- 65.374 Teaching Reading in Academic Subjects

Special Education Courses include:

- 70.101 Introduction to Exceptional Individual
- 70.202 Technology for Exceptionalities
- 70.206 Introduction to Early Intervention
- 70.240 Foundations in Special Education
- 70.250 Behavior Disorders
- 70.340 Educating Individuals with Moderate/Severe Disabilities
- 70.353 Assessment and Planning
- 70.357 Vocational Programming
- 70.401 Student Teaching With Exceptional Individuals
- 70.433 Language Arts for Students with Special Needs
- 70.450 Methods for Elementary Special Education
- 70.451 Methods for Secondary Special Education
- 70.461 Problems in Special Education

Elective Courses - A total of 12 semester hours may be taken as

electives for this major. These courses include:

- 70.255 Experience with Exceptional Individuals
- 70.375 Individual Project
- 72.152 Introduction to Communication Disorders
- 74.153 Introduction to Sign Language

Students may opt to take any four hours of electives to complete the requirements for a bachelor's degree.

### **Area of Concentration in Education of the Deaf/Hard of Hearing**

Special education students may choose to take an area of concentration in education of the deaf/hard of hearing. The undergraduate curriculum in education of the deaf/hard of hearing lays the foundation for the training and education needed to prepare classroom teachers and itinerant hearing therapists to work in educational settings with deaf/hard of hearing children and adults. Students supplement the curriculum for their majors with an area of concentration in education of the deaf/hard of hearing that requires a minimum of 24 semester hours.

Certification to teach deaf/hard of hearing students in school programs is granted by the Pennsylvania Department of Education upon completion of a related graduate program.

All applicants to the graduate program in Education of the Deaf/Hard of Hearing must have completed the courses listed below. Students without an education background will need to take five education courses agreed upon by the curriculum coordinator in education of the deaf/hard of hearing.

### **Required Courses**

The following is a suggested time sequence for courses required in this program of study.

#### **Freshman Year**

- 70.101 Introduction to Exceptional Individuals
- 74.201 History, Education and Guidance of the Deaf/Hard of Hearing
- 74.153 Introduction to Sign Language

#### **Sophomore Year**

- 72.200 Introduction to Audiology
- 75.154 American Sign Language I

#### **Junior Year**

- A statistics course
- 75.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing
- 75.155 American Sign Language II

#### **Senior Year**

- 72.450 Clinical Observation
- Elective Courses

A total of 12 semester hours is taken in elective courses. Courses include:

- 75.155 American Sign Language II
- 75.254 The Deaf Culture
- 75.255 American Sign Language III
- 75.256 American Sign Language IV

### **Elementary Education and Special Education (Dual Certification)**

General Education Requirements - The university requires 53 hours of general education requirements, some of which are specifically required for this major. Core courses designated by the department as applicable to the general education requirements may be elected in partial fulfillment of that requirement. The following general education courses are required:

- 20.101 Composition I and 20.201 Composition II (or any of the writing intensive literature courses) Those testing out of 20.101 and 20.201 will schedule 20.104 Honors Composition and are required to take only six of the nine hours required under Communication
- 25.103 Public Speaking or 25.104 Interpersonal Communication
- 48.101 General Psychology
- 48.210 Life-Span Psychology
- 45.211 Sociology or 46.200 Anthropology
- 70.101 Introduction to Exceptional Individuals
- 53.141 Introduction to Statistics or 48.160 Basic Statistics
- Any American history course
- Any literature course
- 50.101 General Biology
- 54.103 Physical Science
- 53.201 Theory of Arithmetic
- 05.321 First Aid and Safety

Requirements for the Major - A total of 77 semester hours is required

for dual certification in elementary education and special education

Professional Education courses include:

- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations of Education
- 60.393 Social Foundations of Education or 60.406 Multicultural Education
- 62.302 Teaching of Science in the Elementary School
- 62.390 Teaching Social Studies in the Elementary School
- 62.371 Teaching Reading in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 62.373 Diagnostic and Inclusive Practices
- 05.311 Methods and Materials in Elementary School Physical Education or 05.320 Health and Safety in Elementary School
- 60.291 Principles of Teaching
- 62.310 Teaching Fine Arts
- 70.202 Technology for Exceptional Individuals
- 70.206 Introduction to Early Intervention
- 70.240 Foundations of Special Education
- 70.250 Behavior Disorders
- 70.340 Educating Individuals with Moderate/Severe Disabilities
- 70.353 Assessment and Planning
- 70.357 Vocational Programming
- 70.401 Student Teaching with Exceptional Individuals
- 70.433 Language Arts for Students with Special Needs
- 70.450 Methods for Elementary Special Education
- 70.451 Methods for Secondary Special Education
- 70.461 Problems in Special Education

## Education of the Deaf/Hard of Hearing (M.S.)

Admission. Applicants with bachelor's degrees in early childhood education, elementary education, secondary education and special education have appropriate educational backgrounds for entry into the program. Those students without education courses in their background are required to take 15 core credits of education courses. Prerequisite coursework in the following areas must be completed either before or during the graduate program.

Undergraduate area of concentration in education of the deaf/hard of hearing:

- 70.101 Introduction to Exceptional Individuals
- 72.200 Introduction to Audiology
- 72.450 Clinical Observation
- 74.153 Introduction to Sign Language
- 74.154 American Sign Language I
- 74.155 American Sign Language II
- 74.201 History, Education, and Guidance of the Deaf/Hard of Hearing
- 74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing

Students who anticipate applying for admission to the graduate program in education of the deaf/hard of hearing are strongly urged to elect the following elective courses:

- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

All applicants to the graduate program in education of the deaf/hard of hearing are encouraged to complete an introductory course in statistics or its equivalent and the following: (Students may take these, some as general education electives)

A bachelor's degree with a QPA of 2.8 in the education of the deaf/hard of hearing area of concentration and an overall QPA of 2.8 are required. If either QPA is below 2.8, the student may be admitted on a provisional basis and must earn a QPA of 3.0 or better upon completion of 9 to 12 semester hours in graduate-level courses. No Cs may be earned during the provisional period.

Applicants must submit a one-page, handwritten letter, stating professional background, experience and rationale for wanting to be admitted to this master's program. Three letters of reference from individuals who have knowledge of the applicant's academic and teaching background are required. For confirmation purposes, the letters must contain the name, address, position and telephone number of the writer.

Applicants must make arrangements with the program coordinator for an interview.

The National Teacher Examination or the Graduate Record Examination will be required of all applicants.

There is one entry point for full-time enrollment in this graduate program - summer semester. The application deadline for summer enrollment is March 15. Application for admission as a part-time student is not restricted and may be made at any time. There is no quota for students interested in entering the program on a part-time basis. Part-time students are required to meet with the program coordinator to design a curriculum sequence and time line.

Retention. Graduate students are required to earn a QPA of 3.0 with a maximum of two Cs for retention in this master's program. If a C is earned in a practicum course, the course must be repeated and a grade of B or better earned.

## Required Courses

All graduate students must complete a departmental paper (thesis or non-thesis) and successfully pass a comprehensive examination administered during the semester the student plans to graduate. Upon graduation, students are academically prepared to apply for licensure in Pennsylvania and to pursue state and national certification as a teacher of the deaf/hard of hearing. Additionally, students are granted a provisional national certification by the Council on Education of the Deaf (CED) upon formal application.

The following is an example of a full-time curriculum sequence:

Summer Session (total of 12 weeks)

- 72.522 Aural Rehabilitation: Theory and Practice
- 74.560 Practicum with the Deaf/Hard of Hearing
- 74.566 Language for the Deaf/Hard of Hearing I
- 74.567 Language for the Deaf/Hard of Hearing II

Fall Semester

- 74.564 Speech for the Deaf/Hard of Hearing
- 74.565 Problems and Trends in Education of the Deaf/Hard of Hearing
- 74.568 Advanced American Sign Language
- 74.569 Curricular Subjects for the Deaf/Hard of Hearing

Spring Semester

#### 74.570 Student Teaching with the Deaf/Hard of Hearing

Summer Session (total of 6 weeks)

74.575 Counseling Needs of Communicatively Disordered Individuals and Their Families

74.584 Research in Education of the Deaf/Hard of Hearing

## Reading (M.Ed.)

**Admission:** Applicants must satisfy the general admission requirements for the School of Graduate Studies. In addition, applicants to this degree program must:

Hold a baccalaureate degree and a Level I teaching certificate from an accredited college or university.

Have a 2.5 undergraduate QPA.

Submit a one to two page, typed letter of intent stating professional background, experience, and rationale for wanting to be admitted to the program

Submit two letters of recommendation from professionals who can attest to the candidate's promise as a graduate student and professional leader.

Students with a QPA under 3.0 must complete the GRE (recommended scores of 400 on each subtest) or the Millers Analogies Test (recommended score of 35).

Schedule an interview with the program coordinator to clarify program requirements, discuss goals, evaluate academic records, and outline a long-range program.

**Retention:** Students must maintain a QPA of 3.0 to remain in the program.

**Transfer credits:** A maximum of nine semester hours of graduate-level coursework may be transferred from an accredited institution; a maximum of 12 semester hours may be transferred from graduate courses completed at Bloomsburg University. Transfer courses must carry a grade of B or higher and must be completed no more than six years from the date of graduation. Transfer credits may be requested or submitted at any time during the student's six-year program, but require prior approval from the student's advisor and the assistant vice president and dean of graduate studies and research.

## Required Courses

Students seeking an M.Ed. in Reading must complete 36 semester hours with a cumulative QPA of 3.0. All requirements must be completed within six years from the date of admission into the program. Students must reenroll for all courses that exceed the six-year program completion deadline outlined in the Graduate catalog section. Students seeking reading specialist certification must earn a minimum score of 570 on the Praxis specialty area test for reading specialists.

Required Courses for Reading Specialist Certification (24 credits)

63.540 Introduction to the Teaching of Reading

63.541 Reading Assessment and Intervention

63.543 Reading Practicum I

63.544 Reading Practicum II

63.545 Organization and Administration of Reading Programs

63.546 Reading in the Content Areas

63.548 Reading Instruction for the At-Risk Learner

63.550 Literature, Literacy, and Culture

Required Courses for M.Ed. in Reading (36 credits)

All of the above courses plus:

60.584 Curriculum and Instructional Theory, Design, and Development

Either 79.591 Research in Education, or 70.565 Reading and Interpreting Research in Special Education

Two elective courses from a related field that are approved by the faculty adviser.

## Special Education (M.S.)

**Admission.** Applicants seeking admission to the master's degree programs must satisfy the general admission requirements for the School of Graduate Studies. The following additional criteria are also required:

A one-page, handwritten letter of intent stating professional background, experience and rationale for wanting to be admitted to the department

Two letters of recommendation

Resume

An interview with the chair or program coordinator An undergraduate cumulative QPA of 2.8. If average is below 2.8, the student may be admitted provisionally.

No Cs may be earned during a probationary period.

**Retention.** Students must complete the criteria listed in the Teacher Education - Special Education packet prior to the completion of 12 graduate credits. Required GPA, licensing exams, field experience and liability information is described within the packet.

**Graduation.** Students seeking the M.S. in Special Education or the M.S. in Exceptionalities without certification must complete requirements as listed below.

## Required courses

(Prerequisite: B.S. in Special Education and certification)

Graduation requirements

Choice A: Thesis option - 24 hours of course work plus six credits for thesis

Choice B: Department paper option - 30 hours of course work plus department paper

Choice C: Course work option - 36 hours of course work.

Core requirements (9 credits)

70.565 Reading and Interpreting Research in Special Education or 79.591 Research in Education

70.575 Seminar in Current Issues in Special Education

70.591 Practicum in Special Education

Electives (a minimum of 12 credits must be taken in special education):

70.501 Administration and Supervision in Special Education

70.502 Principles of Special Education Law

70.503 Curricular Design and Instruction for Inclusive Education

70.506 Introduction to Early Intervention

70.516 Psychology of Exceptional Individuals

70.522 Mathematics for Students with Special Needs

70.526 Transition Services for Individuals with Special Needs  
 70.533 Language Arts for Students with Special Needs  
 70.540 Education of Individuals with Moderate/Severe Disabilities  
 70.544 Diagnostic and Remedial Techniques (recommended if previous assessment course is older than five years)  
 70.547 Technology and Exceptional Individuals  
 70.550 Elementary Methods for Individuals with Mild Disabilities  
 70.551 Secondary Methods for Individuals with Mild Disabilities  
 70.552 Project in Special Education  
 70.559 Seminar in Special Education  
 70.570 Foundations of Behavior Disorders  
 70.572 Seminar in Behavior Disorders  
 70.595 Internship  
 70.596 Special Workshop 1 (1-6 credits)  
 70.597 Special Workshop 2 (1-6 credits)  
 70.598 Special Workshop 3 (1-6 credits)  
 70.599 Master's Research Paper  
 72.572 Augmentative Communication  
 74.501 Introduction to Sign Language

With adviser approval, students may also choose additional elective graduate courses in related fields such as reading, early childhood, elementary and secondary education, psychology and sociology. Coursework for a special education supervisory certificate may be incorporated into the M.S. in special education.

## Exceptionalities (M.S.)

(This program *does not* lead to certification in Teaching the Mentally/Physically Handicapped)

Graduation requirements

Choice A: Thesis option - 24 hours course work plus six credits for thesis

Choice B: Department paper option - 30 hours of course work plus department paper

Choice C: Course work option - 36 hours course work

Core requirements (9 credits)

70.516 Psychology of Exceptional Individuals  
 70.565 Reading and Interpreting Research in Special Education or 79.591 Research in Education  
 70.575 Seminar in Current Issues in Special Education  
 Electives (a minimum of 12 credits must be taken in special education)

70.501 Administration and Supervision in Special Education  
 70.502 Principles of Special Education Law  
 70.503 Curricular Design and Instruction for Inclusive Education  
 70.506 Introduction to Early Intervention  
 70.522 Mathematics for Students with Special Needs  
 70.526 Transition Services for Individuals with Special Needs  
 70.533 Language Arts for Students with Special Needs  
 70.540 Education of Individuals with Moderate/Severe Disabilities

70.544 Diagnostic and Remedial Techniques  
 70.547 Technology and Exceptional Individuals  
 70.550 Elementary Methods for Individuals with Mild Disabilities  
 70.551 Secondary Methods for Individuals with Mild Disabilities  
 70.552 Project in Special Education  
 70.559 Seminar in Special Education  
 70.570 Foundations of Behavior Disorders  
 70.572 Seminar in Behavior Disorders  
 70.595 Internship  
 70.596 Special Workshop 1 (1-6 credits)  
 70.597 Special Workshop 2 (1-6 credits)  
 70.598 Special Workshop 3 (1-6 credits)  
 70.599 Master's Research Paper  
 72.572 Augmentative Communication  
 74.501 Introduction to Sign Language

With adviser approval, students may also choose additional elective graduate courses in related fields such as reading, early childhood, elementary and secondary education, psychology and sociology.

## Exceptionalities (M.S.)

With Certification in Teaching the Mentally/Physically Handicapped

**Graduation Requirements.** The M.S. and teacher certification requires two separate applications. Students are required to complete a minimum of 36 credits (M.S.) and a maximum of 45 credits or 42 credits plus student teaching (M.S. plus certification).

Core Requirements

70.516 Psychology of Exceptional Individuals  
 70.565 Reading and Interpreting Research in Special Education or 79.591 Research in Education  
 60.501 Major Philosophies of Education

Certification Courses (equivalent courses may be considered)

70.506 Introduction to Early Intervention  
 70.522 Mathematics for Students with Special Needs  
 70.526 Transition Services for Individuals with Special Needs  
 70.533 Language Arts for Students with Special Needs  
 70.540 Education of Individuals with Moderate/Severe Disabilities  
 70.544 Diagnostic and Remedial Techniques  
 70.547 Technology and Exceptional Individuals  
 70.550 Elementary Methods for Individuals with Mild Disabilities  
 70.551 Secondary Methods for Individuals with Mild Disabilities  
 70.559 Seminar in Special Education  
 70.570 Foundations of Behavior Disorders  
 70.591 Practicum in Special Education; OR 70.401 Student Teaching with Exceptional Individuals; and  
 70.461 Problems in Special Education

Electives

70.501 Administration and Supervision in Special Education  
70.502 Principles of Special Education Law  
70.503 Curricular Design and Instruction for Inclusive Education  
70.552 Project in Special Education  
70.572 Seminar in Behavior Disorders  
70.575 Seminar in Current Issues in Special Education  
70.596 Special Workshop I (1-6 credits)  
70.597 Special Workshop 2 (1-6 credits)

70.598 Special Workshop 3 (1-6 credits)  
72.572 Augmentative Communication  
74.575 Counseling Needs of Communicatively Disordered Individuals and Their Families  
74.50I Introduction to Sign Language

With adviser approval, students may also choose additional elective graduate courses in related fields such as reading, early childhood, elementary and secondary education, psychology and sociology.

# Department of Finance and Legal Studies

## Finance (B.S.B.A.)

In addition to 68 semester hours of general education requirements, the program in finance requires 24 hours of core business courses, 15 hours of courses specific to finance, plus 21 hours of business electives to meet the university requirement for a bachelor of science in business administration degree.

Among general education courses specifically required are:

20.101 English Composition I

20.102 English Composition II (or 20.104 Honors Composition)

25.103 Public Speaking

40.121 Principles of Economics I

40.122 Principles of Economics II

53.118 Applied Matrix Algebra

40.256 Business and Economics Statistics

Choose one of the following two courses:

40.156 Business and Economics Math

53.123 Essentials of Calculus

Business Core:

91.220 Financial Accounting

91.223 Managerial Accounting

92.150 Introduction to Computer and Information Science

93.344 Principles of Management

93.481 Business Policies and Strategies

96.313 Introduction to Corporate Finance

97.310 Marketing: Principles and Practice

98.331 Law and Legal Environment

Finance Specialization

96.323 Financial Markets and Institutions

96.343 Investment Management

96.454 Advanced Corporate Finance

96.413 International Finance

Plus one upper-level finance elective

Electives - Students must choose 21 semester hours in elective courses

from General Business, Accounting, Computer and Information Systems,

Management, Office Systems, Finance, Marketing and Business Law.

Some additional courses are available as well; students should consult

their adviser.

## Career Concentration in International Business

Administered by Department of Finance and Legal Studiesw  
Effective Fall, 2002

Required courses include:

93.456 International Management

96.413 International Finance

97.380 International Marketing

98.407 International Legal Environment

These courses may also be applied to completing majors or minors in business as requirements, electives and/or diversity courses.

Elective credits include:

40.433 International Economics

40.434 Economic Growth of Underdeveloped Areas

44.280 International Relations

Or other 300/400 level courses in economics or political science with the approval of the adviser.

Or an internship experience and/or course work while participating in a foreign exchange program, with the approval of the advisor or appropriate department chair.

Language competency: a student must satisfy a foreignlanguage competency to the intermediate level, either by completing up to a Level IV in course work or demonstrating proficiency by examination in the foreign language.

Any courses taken are in addition to the 18 credit hours in the concentration and may also count toward the students humanities general education requirement.

## Minor in Legal Studies

The minor in Legal Studies consists of 21 semester hours, 15 of which must be taken at Bloomsburg University.

Required, but not a prerequisite for other courses, is:

98.331 Law and the Legal Environment

Take at least one course from each of the following four groups: law and the humanities, law and the social sciences, rhetoric and theory, and legal regulation doctrine.

Humanities:

20.152 Literature and Society (when focussed on law and legal issues)

98.349 Law and Literature

20.481 Special Topics in English

98.499 Special Topics in Law

Social sciences:

44.244 Introduction to Criminal Justice

44.446 Constitutional Law I

44.447 Constitutional Law II

44.448 The Judicial Process

44.487 International Law and Organization

45.342 Penology

48.254 Psychological Aspects of Social Issues

Rhetoric, theory and jurisprudence:

25.321 Argumentation

28.292 Contemporary Moral Problems

28.305 Philosophy of Law

28.307 Contemporary Political Philosophy

Legal environment, regulation and doctrine:

27.310 Media Law

41.301 Water Resources Management

41.302 Land Business Management

98.332 Business and Commercial Law

98.407 International Legal Environment

98.450 Legal Environment

98.460 Employment and Discrimination Law

48.499 Special Topics in Law

Electives - Two courses from the following options, totaling six semester hours:

Any two additional courses from two of the four categories above; An independent study course, internship in legal

studies, honor seminar or international exchange course or program, with the approval of the Legal Studies Minor coordinator. Two courses in the first year of law school at Widener School of Law, Harrisburg, if a participant in the "3+3" B.A./J.D. program. See coordinator for details.

# Department of Geography and Geosciences

## Earth Science (B.S.)

In addition to 53 semester hours of general education requirements, a total of 59 semester hours is required for a major in earth science. The balance of the university's 128-semester hour requirement for a bachelor's degree come from electives. Required courses are:

- 51.101 Physical Geology
- 51.102 Historical Geology
- 54.110 Introduction to Astronomy
- 51.111 Physical Geology Laboratory
- 51.112 Historical Geology Laboratory
- 51.255 Meteorology
- 51.259 Oceanography
- 51.260 Earth Materials

Choose four from the following 13 courses:

- 51.261 Mineralogy
- 51.262 Petrology
- 51.265 Geomorphology
- 51.320 Remote Sensing of the Earth
- 51.355 Synoptic Meteorology
- 51.360 Introduction to Paleontology
- 51.369 Structural Geology
- 51.370 Hydrology
- 51.460 Aqueous Geochemistry
- 51.468 Stratigraphy and Sedimentation
- 51.470 Groundwater Hydrology
- 51.475 Independent Study
- 51.480 Geophysics
- 51.493 Bibliography and Research
- 51.496 Internship in Earth Science

Approved courses offered by the Marine Science Center, Wallops Island, Va. (Courses in marine science are offered during the summer by the Marine Science consortium. The consortium is a joint program sponsored by several Pennsylvania state universities. A maximum of 9 semester hours from the Marine

Science Consortium may be applied toward this bachelor's degree.)

Choose one from the following two courses:

- 56.110 Introduction to Computer Science
- 92.150 Introduction to Computer and Information Science

Or a higher-level course in programming

Choose two from the following six courses:

- 53.113 Pre-Calculus
- 53.123 Essentials of Calculus
- 53.124 Essentials of Calculus II
- 53.125 Analysis I
- 53.126 Analysis II
- 53.141 Introduction to Statistics

Choose two from the following three courses:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry

52.216 Chemical Principles and Measurements (highly recommended as the second course)

Choose one of the following two combinations:

- 54.111 Introductory Physics I and
- 54.112 Introductory Physics II

Environmental Science Option

The option in Environmental Science requires a total 66 to 68 credits in addition to General Education requirements, depending on choices of electives. Required courses include:

- 51.100 Environmental Geology
- 51.101 Physical Geology
- 51.111 Physical Geology Lab
- 51.255 Meteorology
- 51.259 Environmental Issues and Choices
- 50.114 Concepts in Biology I
- 50.115 Concepts in Biology II

Choose at least 15 credits from the following:

- 51.260 Earth Materials
- 51.265 Geomorphology
- 51.320 Remote Sensing of the Earth
- 51.360 Paleontology
- 51.369 Structural Geology
- 51.370 Surface Hydrology
- 51.460 Aqueous Geochemistry
- 51.468 Stratification and Sedimentation
- 51.470 Groundwater Hydrology
- 51.480 Applied Geophysics
- 51.496 Internship in Earth Science
- or up to nine credits from approved Marine Science courses

Choose two courses from the following:

- 51.242 Map Skills
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management
- 41.304 Environmental Valuation
- 41.342 Geographical Information Systems
- 41.462 Techniques of Geographic Measurement

Choose one of the following two courses:

- 50.351 General Ecology
- 50.451 Conservation Biology

Choose two from the following three courses:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measurements
- 52.230 Fundamentals of Organic Chemistry
- 54.111 Introductory Physics I

Choose a maximum of one of the following two courses:

- 53.112 Trigonometry
- 53.114 College Algebra

Choose a minimum of one course from (both may be chosen from

this group):

- 53.113 Pre-Calculus
- 53.123 Essentials of Calculus
- 53.125 Analysis I
- 53.126 Analysis II

53.141 Introduction to Statistics

## Geography - Minor

The minor in geography constitutes 18 semester hours and must include the following courses:

- 41.105 Environmental Issues and Choices
- 41.250 Elements of Planning
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management

Choose one from the following three courses:

- 41.315 Geography of Recreation, Tourism and Sport
- 41.242 Map Skills
- 41.264 Applied Cartography

## Geography (B.A.)

### General Geography Option

Also see...

- Urban and Regional Planning Option
- Environmental Planning Option

In addition to 54 semester hours of general education requirements, a

total of 30 to 60 semester hours is required for a major in geography.

The balance of hours toward the 128-hour university requirement for a

bachelor's degree is made up of elective courses

Core Courses:

- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 41.221 Economic Geography
- 41.242 Map Skills
- 41.462 Techniques of Geographic Measurement
- 41.492 Geography Seminar

18 semester hours to be selected from electives. The elective courses are divided into areas of specialization for your information. A minimum of 9 semester hours are to be selected from 300- and 400-level courses.

Physical:

- 41.125 Weather and Climate
- 41.303 Soil Resources Management

Human:

- 41.250 Elements of Planning
- 41.310 Population Geography
- 41.363 Urban Geography

Regional:

- 41.200 Geography of the United States and Canada
- 41.203 Geography of Australia
- 41.204 Geography of South Asia
- or any regional geography course that may be offered

Environmental:

- 41.105 Environmental Issues and Choices
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management
- 41.304 Environmental Valuation
- 41.315 Geography of Recreation, Tourism, Sport
- 41.305 Environmental Risks and Hazards

Techniques:

- 41.264 Applied Cartography
- 41.342 Geographic Information Systems

### 51.320 Remote Sensing of the Earth

Special Topic: Title changes depending on topic

Optional Elective: 41.496 Internship in Geography

Upon departmental approval a student may choose to undertake an internship of 3 to 12 semester hours of which a maximum of 3 semester hours may be applied to the required elective credits.

## Geography (B.A.)

### Urban and Regional Planning Option

Also see...

General Geography Option

Environmental Planning Option

In addition to 54 semester hours of general education requirements, a total of 30 to 60 semester hours is required for a major in geography. The balance of hours toward the university requirement for a bachelor's degree is made up of elective courses

Core Courses:

- 41.101 World Physical Geography
  - 41.221 Economic Geography
  - 41.250 Elements of Planning
  - 41.350 Advanced Planning
  - 41.497 Internship in Planning
  - 41.498 Applied Planning Seminar
- Electives (choose 3 from the following six courses)
- 41.258 Environmental Conservation
  - 41.302 Land Resources Management
  - 41.304 Environmental Valuation
  - 41.315 Geography of Recreation, Tourism and Sport
  - 41.363 Urban Geography
  - 51.100 Environmental Geology

Skills and Tools

- 09.231 Technical Writing
  - 25.103 Public Speaking
  - 53.141 Introduction to Statistics
  - 56.110 Introduction to Computer Science
- Choose two from the following four courses:
- 41.242 Map Skills
  - 41.264 Applied Cartography
  - 41.342 Geographic Information Systems
  - 51.320 Remote Sensing of the Earth

Cognate Areas

Economics (choose at least one from the following four courses)

- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 40.316 Urban Economics
- 40.410 Public Finance

Political Science

- 44.120 United States Government
- 44.452 State and Local Government

Also recommended are:

- 44.438 Public Personnel Administration
- 44.452 Public Policy

Sociology (choose at least one from the following five courses)

- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 45.316 Urban Sociology
- 45.457 Sociology of Community

45.468 Social Service Planning

## Geography (B.A.)

### Environmental Planning Option

Administered by Geography and Geosciences

Effective Fall, 2002

Also see...

Urban and Regional Planning Option

General Geography Option

In addition to 54 semester hours of general education requirements, a total of 30 to 60 semester hours is required for a major in geography. The balance of hours toward the 128-hour university requirement for a bachelor's degree is made up of elective courses

Core Courses:

- 41.101 World Physical Geography
- 41.105 Environmental Issues and Choices
- 41.250 Elements of Planning
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management
- 41.350 Advanced Planning
- 41.497 Internship in Planning
- 41.498 Applied Planning Seminar

Electives (choose a minimum of three from the following five courses)

- 41.303 Soil Resources Management
  - 41.304 Environmental Valuation
  - 41.315 Geography of Recreation, Tourism and Sport
  - 41.305 Environmental Risks and Hazards
  - 51.100 Environmental Geology
  - 51.370 Hydrology
- Skills and Tools
- 09.231 Technical Writing
  - 25.103 Public Speaking
  - 44.452 State and Local Government
  - 53.141 Introduction to Statistics
  - 92.150 Introduction to Computer and Information Science
  - 44.120 United States Government (strongly recommended)
- Choose two from the following four courses
- 41.242 Map Skills
  - 41.264 Applied Cartography
  - 41.342 Geographic Information Systems
  - 51.320 Remote Sensing of the Earth

## Geology (B.S.)

General Education Requirements - In addition to 54 semester hours of general education requirements, 72 semester hours is required for a major in geology. The balance of the university's 128-hour requirement for an undergraduate degree comes from elective courses. The degree program in geology requires the following courses:

- 51.101 Physical Geology
- 51.102 Historical Geology

51.111 Physical Geology Laboratory

51.112 Historical Geology Laboratory

51.261 Mineralogy

51.262 Petrology

51.360 Introduction to Paleontology

51.265 Geomorphology

51.369 Structural Geology

51.468 Stratigraphy and Sedimentation

51.470 Groundwater Hydrology

51.493 Bibliography and Research

51.460 Aqueous Chemistry

51.480 Geophysics (highly recommended)

51.451 Field Techniques in Earth Science or equivalent 4 to 6 semester hours field course

Choose one of the following two sets of courses:

53.123 Essentials of Calculus and 53.141 Introduction to Statistics

or 53.125 Analysis I and 53.126 Analysis II

Choose two of the following three courses:

52.115 Fundamentals of Inorganic Chemistry

52.131 Fundamentals of Organic Chemistry

52.216 Chemical Principles and Measurements (highly recommended as the second course)

Choose one of the following two sets of courses:

54.111 Introductory Physics I and 54.112 Introductory Physics II

or 54.211 General Physics I and 54.212 General Physics II

Note: 51.480 Geophysics may be substituted for the second semester of physics.

## Geology - Minor

Administered by Geography and Geosciences

Effective Fall, 2002

A total of 20 semester hours is required for a minor in geology. A minor

program in geology requires the following:

51.101 Physical Geology

51.102 Historical Geology

51.111 Physical Geology Laboratory

51.112 Historical Geology Laboratory

12 hours selected from the following 11 courses:

51.261 Mineralogy

51.262 Petrology

51.320 Remote Sensing of the Earth

51.355 Synoptic Meteorology

51.360 Introduction to Paleontology

51.265 Geomorphology

51.369 Structural Geology

51.370 Hydrology

51.468 Stratigraphy and Sedimentation

51.470 Groundwater Hydrology

51.475 Independent Study

51.460 Aqueous Chemistry

51.480 Geophysics (highly recommended)

# Department of History

## History (B.A.)

Administered by History

Effective Fall, 2002

In addition to 54 semester hours of general education requirements, a total of 36 semester hours is required for a major in history with at least 15 semester hours drawn from 300 and 400 level courses. It is strongly recommended that students take 42.398 Research and Writing Skills as early as possible in their program.

42.112 Origins of the Modern World

42.113 The Modern World

42.121 United States History Survey: Colonial Period to 1877

42.122 United States History Survey: 1877 to the Present

42.133 The Ancient and Medieval Worlds

42.398 Research and Writing Skills

Choose one from the following four courses:

42.141 Modern China and Japan

42.142 Latin America: From European Colonization to the Present

42.143 Black Africa

42.144 Islamic and Hindu Worlds: Middle East, India and Malaysia

Any course, 3 semester hours, is selected from upper-division (300-400 level) offerings in American history.

Any course, 3 semester hours, is selected from upper-division course (300-400 level) offerings in Western

civilization or European history covering the period through 1815

Any course, 3 semester hours, is selected from upper-division (300-400 level) offerings in European history covering the period since 1789

Electives in history: any two 300 or 400-level history courses.

## Minor in History

Administered by History

Effective Fall, 2002

This program requires 18 semester hours of history courses with at least 6 semester hours in 300 or 400 level courses. The minor includes:

6 semester hours, any two 100 level history courses

6 semester hours, any two 200 or 300 level history courses

3 semester hours, any of the 300 or 400 level history courses

42.398 Research and Writing Skills

The program for the history minor provides the following features: at least one directed exercise in independent historical research (42.398); a minimal background in those courses at the 100 level that are basic to and required of history majors; flexibility in framing a minor pertinent to the student's academic interest; and at least one course, in addition to 42.398, at an advanced level.

# Honors Program

## About the Honors Program

The Bloomsburg University Honors Program offers opportunities for an enriched college experience to students seeking academic challenge.

The Honors Program's goals are:

- to challenge students to perform at the highest level of excellence
- to encourage independent thinking and learning
- to create a supportive environment that encourages the aspirations and achievements of students and fosters their dignity, self esteem and sense of initiative
- to encourage creativity, intellectual independence, analytical thinking and problem solving and the growth of communication skills through a strong emphasis on reading, writing and research
- to provide opportunities for students to develop a broader perspective on national and global issues to provide forums for symposia, experiential learning and independent study
- to create a meaningful learning community to develop students' leadership potential
- to enable students to engage in a rigorous, coherent, integrated academic experience with a high degree of student-faculty interaction

The Honors Program encourages students to explore opportunities for post-graduate work and professional study. The Honors Program is proud of the high rate of acceptance of Bloomsburg honors students to professional and graduate programs.

Typically, honors classes are smaller, offering students opportunities to discuss in greater depth the subject being taught. Honors classes are often enriched through field trips, guest speakers, films and special projects.

New freshmen applying for admission to the program must have a minimum of 1100 SAT and rank in the top 20 percent of their high school class. Admittance to the program for students already at Bloomsburg is based on academic performance at Bloomsburg University.

The Honors Program awards merit scholarships on a competitive basis to entering freshmen. Some upper-level competitive merit scholarships are also available each year. Many honors students also qualify for other merit scholarships, such as the Mitrani and Presidential awards.

Honors students at Bloomsburg take 25 hours of honors courses that include honors general education courses,

honors upper division seminars and two semesters of honors independent study culminating in an honors thesis.

## Honors Courses

The student can take up to 34 hours of honors work but only 25 are required and courses (except the senior honors independent study) can be taken at any time during the student's enrollment at Bloomsburg.

To graduate with honors, the student must take at least one honors humanities, one honors math/science class with a laboratory component, one honors social science class and one 300-level honors seminar plus 08.300 Introduction to Honors Research, plus two semesters of honors independent study.

Freshmen entering the program will automatically be placed in 20.104 Honors Composition for fall semester of their freshman year.

Honors curriculum - The student will be required to take 25 hours of honors credit distributed among the following classes, with additional requirements as indicated: Choose one of the following two courses to fulfill general education requirements for humanities courses:

08.101 Honors Humanities I

08.201 Honors Humanities II

Choose one of the following two courses, with a laboratory component that may be exempted by the director:

08.110 Honors Math/Science I

08.210 Honors Math/Science II

Choose one of the following two courses to fulfill general education requirements for social science courses:

08.130 Honors Social Science I

08.230 Honors Social Science II

08.300 Introduction to Honors Research

Choose one of the following four courses to fulfill general education requirements in these areas:

08.301 Honors Seminar on Values

08.302 Honors Seminar on Diversity

08.303 Honors Seminar, Quantitative and Analytical Reasoning

08.304 Honors Seminar, Interdisciplinary Studies

Course numbers for the following two courses depend on the program in which the student is completing a degree. Business, Humanities and Social Sciences independent studies are scheduled under Code 09, while Biology, Chemistry, Geology, Mathematics and Professional Studies use their own course numbers. Consult an adviser.

# Department of Health, Physical Education and Athletics

## Exercise Science (B.S.)

In addition to general education requirements totaling 54 semester hours, a minimum of 44 semester hours are required for a major in exercise science, with the remaining 26 semester hours required for a bachelor's degree coming from elective courses.

- 48.101 General Psychology
- 45.211 Principles of Sociology
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 50.205 Introduction to Nutrition
- 50.231 Biology of Aging
- 52.101 Introduction to Chemistry
- 05.270 Exercise and You
- 09.230 Human Sexuality
- 05.305 Aquatic Fitness Programming
- 05.321 First Aid Safety
- 05.476 Exercise Physiology
- 05.477 Methods and Materials in Adult Physical Education
- 59.498 Internship in Exercise Science
- Choose one of the following two courses:
  - 05.411 Exercise Prescription and Programming for Special Populations
  - 05.370 Measurement and Evaluation of Human Performance
- Choose one of the following two courses:
  - 93.344 Principles of Management
  - 91.498 Introduction to Health Care Administration
- Choose one of the following four courses:
  - 48.253 Social Psychology
  - 48.311 Adulthood and Aging
  - 48.380 Physiological Psychology
  - 48.476 Principles of Behavior Modification
- Choose one of the following two courses:
  - 05.430 Current Issues in Health Education
  - 28.290 Alcohol Use and Abuse

## Minor in Exercise Science

Students are required to complete a minor or area concentration. Contact a department adviser for details.

## Exercise Science and Adult Fitness (M.S.)

**Admission.** A bachelor's degree in the biological or allied health sciences or a related field is recommended. Undergraduate deficiencies may be addressed while working towards the master's degree (without credit earned toward the degree). Additionally, applicants must have an undergraduate QPA of at least 2.5, provide Miller Analogy Test or Graduate Record Examination scores, three letters of recommendation and a statement describing goals and objectives of their graduate study.

## Graduation

Applied exercise physiology track - A total of 40 semester hours of which 3-6 semester hours of thesis are required to graduate.

Clinical exercise physiology - A minimum of 33 semester hours, of which 3-6 semester hours in a practicum experience are required to graduate.

## Required courses

### Applied Physiology track

- 05.500 Instrumentation and Laboratory Techniques
- 05.510 Research Methods in Exercise Science
- 05.511 ECG Interpretation and Clinical Exercise Testing
- 05.512 Current Research in Exercise Science
- Choose one of the following three courses:
  - 05.551 Mechanics of Human Movement
  - 50.576 Neuromuscular Physiology
  - 05.595 Practicum in Exercise Science
- 05.557 Scientific Evaluation of the Elite Athlete
- 05.575 Exercise Physiology I
- 05.576 Exercise Physiology II
- 05.599 Master's Thesis
- 50.474 Vertebrate Systems Physiology

**Thesis Requirement.** Graduate students admitted to candidacy for the Master of Science degree are required to complete a thesis. The student must confer with the assigned graduate adviser to select a thesis adviser. The thesis adviser serves as chairperson of the thesis committee. A second faculty member is selected from either the Health, Physical Education and Athletics or the Biological and Allied Health Sciences departments. The third faculty member may be selected from any discipline within the university as appropriate to the thesis topic. The thesis topic must be approved by the thesis adviser and the graduate program coordinator. Students may select either the thesis or the publishable manuscript option. The completed thesis will be presented to the thesis committee, peers, and the university community.

### Clinical Exercise Physiology

- 05.500 Instrumentation and Laboratory Techniques
- 05.510 Research Methods in Exercise Science
- 05.511 ECG Interpretation and Clinical Exercise Testing
- 05.535 The Physiology of Training
- 05.551 Mechanics of Human Movement
- 05.553 Exercise in Chronic Disease Rehabilitation
- 05.561 Exercise and Aging
- 05.575 Exercise Physiology I
- 05.577 Worksite Programming
- 05.595 Practicum in Exercise Science

**Practicum Requirement.** Graduate students in the clinical exercise physiology track must complete a practicum experience approved by the advisor and the graduate program coordinator. This capstone experience will typically occur in the final semester of study during the summer.

# Department of Instructional Technology

## Instructional Technology (M.S.)

**Admission** - An individual with a bachelor's degree from an accredited four-year college, who earned an undergraduate grade point average of at least 2.8 on a 4.0 scale, may apply for admission to the MSIT program.

### Admission requirements

A completed application form for graduate studies at Bloomsburg University

The application fee paid in full Official transcripts from all undergraduate institutions attended

Three letters of recommendation A one to two-page essay describing the applicant's interest in instructional technology

A personal interview, scheduled after the above materials have been processed

International applicants must complete a separate application from the Office of Graduate Studies and Research and must take the Test of English as a Foreign Language (TOEFL). A minimum score of 570 on the paper-based TOEFL test or 213 on the computer-based test is required for admission to the program.

An individual may begin taking courses in the MSIT program on a part-time basis prior to admission, but completion of such courses does not guarantee admission.

## Graduation

Persons who hold a bachelor's degree in any discipline from an accredited college or university may become degree candidates and proceed to the master's degree by completing a minimum of 33 semester hours of coursework concluding in either an internship or master's thesis. All courses are 3 semester hours unless otherwise indicated.

## Required courses

### Required Courses for Corporate Option

The Master of Science in Instructional Technology requires 33 semester hours. Parentheses indicate the semesters the courses are offered.

Required Courses (12 semester hours):

57.550 Instructional Design (fall, spring)

57.551 Advanced Instructional Design (fall, spring, summer)

57.570 Introduction to Interactive Technologies (fall, summer)

57.575 Managing Multimedia Projects (fall, spring)

Instructional Computing (at least two of the following three courses):

57.572 Authoring Tools for Cross Platforms (fall, spring)

57.573 Authoring Tools for Windows (fall, spring)

57.574 Authoring Tools for Networks (spring, summer)

Communications (at least one from the following):

93.566 Organizational Behavior (fall)

93.556 International Management (summer)

93.583 Human Resource Development (fall)

94.540 Training and Development

Elective Courses (minimum of 9 semester hours):

57.556 Applying Theories of Learning to Interactive Technologies (summer)

57.560 Multimedia Productions (fall, spring, summer)

57.584 eTraining Strategies (fall, spring)

32.595 Directed Study in Studio Art (fall, summer)

Final Requirement (one of the following two courses):

57.590 Graduate Internship (3 semester hours)

57.599 Graduate Thesis (6 semester hours)

### Required Courses for Education Option

The Master of Science in Instructional Technology requires 33 semester hours. Parentheses indicate the semesters the courses are offered.

Required Courses (15 semester hours):

57.540 Technology Planning Across the Curriculum (fall, summer)

57.542 Technology Applications for the Classroom (fall, spring)

57.550 Instructional Design (fall, spring)

57.570 Introduction to Interactive Technologies (fall, summer)

57.580 Instructional Applications of Internet (spring, summer)

Elective courses (18 semester hours):

57.546 Research in Instructional Technology

57.551 Advanced Instructional Design

57.560 Multimedia Productions

57.556 Applying Theories of Learning for Interactive Technologies (summer)

57.574 Authoring Tools for Networks (spring, summer)

57.584 eTraining Strategies (fall, spring)

32.595 Directed Study in Studio Art (fall, summer)

56.576 Networks: Configuration and Implementation (fall)

Final Requirement (one course):

57.590 Graduate Internship (3 semester hours)

57.599 Graduate Thesis (6 semester hours)

Note: The Instructional Technology Specialist Certification from the Pennsylvania Department of Education, requires the following courses:

# Department of Languages and Cultures

## Career Concentration in Chinese Studies

The concentration program requires 18 credit hours of study, with 12 credits in core courses and 6 credits in elective courses. Bloomsburg University maintains academic relationships with several universities in China. Currently, QingHai Normal University, Northeast Normal University and ShenYang Teacher's College offer study-abroad programs to our students. Students taking courses through programs with these universities may have credits applied to the concentration.

### Required Courses:

16.105 Chinese I

16.106 Chinese II

16.211 Foundations of Chinese Civilization

16.212 China Today

### Elective Courses:

42.141 The Modern Far East

31.346 Art History of the Far East

44.160 Nations, States and Governments

## French (B.A.)

Students who have studied a language elsewhere should consult the department chairperson for appropriate placement. Generally, the student should schedule courses as follows:

With one year of high school study or equivalent, schedule 10.101

With two years of high school study or equivalent, schedule 10.102

With three years of high school study or equivalent, schedule 10.203

With four years of high school study or equivalent, schedule 10.204

With no previous language study, schedule special sections of 10.100 for beginners in French.

**Education Majors** - Students majoring in early childhood education and elementary education may elect an area of concentration in French. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that courses in culture and civilization oral expression, literature, phonetics and foreign language in elementary school be taken to complete the area of concentration. Students are required to take the methods course, 16.350 Foreign Language Teaching Methods and Research.

Requirements for a major leading to the Bachelor of Science in Education are found in the section on Secondary Education. Students should inquire in the department about changes in the requirements.

**Programs Abroad** - All language students are urged to seek opportunities to study abroad. An exchange and internship program with the University of Nancy's Faculté des Lettres and the Commercial Institute in Nancy, France, brings

French students to Bloomsburg University. It affords Bloomsburg University students in French, regardless of their major, to study at Nancy. French majors, minors and/or business majors with a strong concentration in French, are especially encouraged to take part in this program.

## Required Courses

A total of 36 semester hours is required for a major in French in addition to 54 semester hours of general education requirements. Other than the General Education distribution requirements, the department does not restrict the choice of courses in this area, however, students are encouraged to choose general education courses in consultation with their advisers. The balance of courses to meet the university's 128-semester hour requirement for a bachelor's degree come from elective courses. Required courses for the major include:

10.203 French III

10.204 French IV

10.205 Applied Phonetics and Pronunciation

10.206 Structure of the French Language

10.207 Conversation: French Daily Life and Customs

10.211 Foundations of French Culture and Civilization

10.401 Advanced French Language

10.402 Contemporary Issues in Francophone Media

10.422 Masterpieces of French Literature

10.423 Black Francophone Writers and Culture

Students will choose 6 credits of electives by advisement to fulfill the requirement.

## Minor in French

Requirements for the minor in French total 21 credit hours

10.203 French III

10.204 French IV

10.206 Structure of the French Language

Plus 12 credits in French above the level of French II.

## German (B.A.)

Administered by Languages and Cultures  
Effective Fall, 2002

A minimum of 36 credit hours is required for the major, beginning with German III (11.203). Students need German II (11.102) or the equivalent before entering the major sequence.

Students majoring in Education may elect an area of concentration in German. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that courses in culture and civilization oral expression, literature, phonetics and foreign language in elementary school be taken to complete the area of concentration.

Area concentration in German is offered to Education majors, who should check with their adviser to develop a plan of study. Requirements for a major leading to the Bachelor of Science in Education are found in the section

on Secondary Education. Students should inquire in the department about changes in the requirements.

**Study Abroad in Jena, Germany** - Bloomsburg University offers an exchange program with the

Friedrich-Schiller-Universität in Jena, Germany. The Jena program is open to all Bloomsburg University students who have had at least two years of college German or the equivalent. Jena offers a broad range of courses for exchange students, such as German Language, Culture, Literature, Intercultural Business and Communication. Students are placed in courses after taking a placement test in Jena. The exchange usually takes place in spring semester. Students are encouraged to participate in their sophomore or junior years.

Required Courses:

11.203 German III

11.204 German IV

11.205 Applied Phonetics and Pronunciation

11.206 Structure of the German Language

11.207 Conversation: Daily Life and Customs

11.211 Culture and Civilization I

11.331 Selected Twentieth Century Writers

11.402 Contemporary Issues in the German Media

11.422 Masterpieces of German Literature

Choose one of the following two courses:

20.311 Structure of the English Language

20.411 Modern Linguistics Theory

Students choose six credits minimum of electives by advisement. Students who are exempted from any of the above through credit by examination or equivalency or because they enter the sequence with a course above 11.203, substitute an equal number of credits from the electives by advisement.

## Minor in German

A total of 21 credit hours is required for a minor in German:

11.203 German III

11.204 German IV

11.206 Structure of the German Language

Plus 12 credits in German above the level of German III

## Spanish (B.A.)

Students who have studied a language elsewhere should consult the department chairperson for appropriate placement. Generally, the student should schedule courses as follows:

With no background in the language, schedule 12.100

With one year of high school study or equivalent, schedule 12.101

With two years of high school study or equivalent, schedule 12.102

With three years of high school study or equivalent, schedule 12.203

With four years of high school study or equivalent, schedule 12.204

With no previous language study, schedule special sections of 12.100 for beginners in Spanish.

**Education Majors** - Students majoring in Education may elect an area of concentration in Spanish. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that

courses in culture and civilization oral expression, literature, phonetics and foreign language in elementary school be taken to complete the area of concentration.

The area of concentration for students in early childhood education and elementary education is under revision and students should inquire about new requirements.

Requirements for a major leading to the Bachelor of Science in Education are found in the section on Secondary Education. Students should inquire in the department about changes in the requirements.

**Annual Spanish Section Award** - This award is presented to a senior who: excels in the Spanish language, has rendered language-related service to the department and the university, and is recommended by the majority of the faculty in the Spanish section

**Study Abroad Opportunities:** The department offers an exchange program with the University of Puerto Rico, Cayey Campus. The UPR is open to all university students who have had at least two years of college Spanish. A Summer Abroad program is also offered, the first seven days at Bloomsburg University and then four weeks at the Universidad Pontificia of Salamanca, Salamanca, Spain. The program also includes trips to different cultural sites.

**Internship Opportunities:** Students can enroll in 38.498 Internship in the Humanities, transferred as an elective in the Spanish program. Internships in Spanish require total cultural immersion and must be designed to take place in a Spanish-speaking country. Internships are tailored to the students' interest and according to the skills gained in the language. Interns have both an on-site and a faculty supervisor to oversee and guide their work.

**Career Opportunities:** A student interested in a teaching career can elect Spanish as an area of specialization leading to a Bachelor of Science in Secondary Education or as a Career Concentration in Elementary Education. Students wishing to combine proficiency in Spanish with another major may elect 21 semester credit hours to complete a minor in Spanish. Other career opportunities exist in business administration, commerce, banking, public relations, translation and interpretation services, publishing, journalism, the tourist industry and hotel management. Since Spanish is spoken around the world, highly qualified bilingual graduates are in demand by the international business community, the Foreign Service and by international agencies such as the World Bank, the World Health Organization and the United Nations.

**Requirements for the Major** - Besides meeting the general education requirements, the student will take a total of 36 semester credit hours above the 100-level to complete his/her major. Along with foundational course work to develop proficiency in the language in the four skills and the learning of technical tools to approach literary works, the program also offers courses in culture and civilization taught in English to support the goals of global-cultural awareness and international education.

Required courses include:

12.203 Spanish III

12.204 Spanish IV

12.205 Phonetics: Theory and Practice

12.206 Structure of the Spanish Language

12.207 Conversation: Hispanic Daily Life and Customs

12.211 Spanish Culture and Civilization

12.214 The Hispanic World Today

- 12.306 Structure and Composition
- 12.331 Selected 20th Century Writers
- 12.402 Issues in the Hispanic Media
- 12.421 Hispanic Prose

The following two courses may count as required courses with the chair's approval:

- 12.250 Spanish for Spanish Speakers
- 12.212 Spanish American Culture and Civilization

Electives should be chosen from Spanish courses numbered above 12.204 with advisement.

## Minor in Spanish

A total of 21 credit hours is required for a minor in Spanish:

12.203 Spanish III

12.204 Spanish IV

12.206 Structure of the Spanish Language

Plus 12 credits in Spanish above the level of Spanish III

# Department of Mathematics, Computer Science and Statistics

## Computer Science (B.S.)

A total of 54 semester hours is required for a major in computer science, as well as 54 hours of general education requirements, to include:

25.103 Public Speaking

Requirements for the major:

53.125 Calculus I

53.126 Calculus II

53.185 Discrete Mathematics

56.121 Computer Science I

56.122 Computer Science II

56.221 Computer Science III

56.240 Assembly Language Programming

56.250 Programming Language Paradigms

56.330 Digital Design

56.350 Organization of Programming Languages

56.355 Analysis of Algorithms and Data Structures

56.386 Concurrent Programming and Foundations of Operating Systems

Specialized Requirements

Select five courses totaling 15 semester hours from the following 11 courses:

56.356 Windows Programming

53.361 Coding and Signal Processing

56.373 Numerical Methods in Computing

53.374 Introduction to Discrete Systems Simulation

56.471 Numerical Analysis

56.472 Matrix Computation

56.491 Special Topics in Computer Science

56.323 Artificial Intelligence

56.357 Principles of Database Design

56.450 Compiler Construction

56.375 Local Area Networks

56.497 Internship in Computer Science

At most, one of the following three courses:

53.241 Probability and Statistics

53.225 Analysis III

53.314 Linear Algebra

At least one of the following three courses:

56.410 Computer Graphics

56.430 Computer Architecture

56.444 Parallel Processing

53.314 Linear Algebra

56.121 Computer Science I

**Bachelor of Arts in Mathematics** - Required courses:

At least one 3-semester-hours computer science course numbered 56.122 or above.

At least three 3-semester-hours mathematics courses at the 300 level, including at least one from the classical core consisting of:

53.322 Differential Equations

53.331 Modern Geometry

53.341 Statistical Methods

53.360 Number Theory

53.411 Introduction to Group Theory

53.421 Advanced Calculus

53.422 Complex Variables

53.451 Introduction to Topology

In addition, at least 6 semester hours in a discipline to which mathematics is traditionally applied (as approved by the adviser). Courses 53.311 and 56.305 may not be counted as requirements for the major.

**B.A. Statistics Track** - The Statistics track prepares students for a variety of careers in statistics in research, industry and government and provides a base for work at the graduate level. Students planning to continue with graduate studies should take 53.225, 53.236 and 53.462. The track provides a foundation in mathematics as well as courses in statistical methodology, computer programming and statistical software.

Required courses:

53.141 Introduction to Statistics

56.121 Computer Science I

56.122 Computer Science II

53.125 Calculus I

53.126 Calculus II

53.185 Discrete Mathematics

52.240 Statistical Methods

53.241 Probability and Statistics

53.314 Linear Algebra

53.340 Statistical Software

53.342 Design and Calculus of Experiments

53.343 Applied Regression Calculus

Select two courses from Mathematics numbered 53.225 or above

Recommended choices for electives:

53.225 Calculus III

53.226 Calculus IV

53.243 Nonparametric Statistics

53.373 Numerical Methods

53.374 Introduction to Discrete Systems Simulation

53.441 Mathematics and Sports

53.461 Probability Models and Applications

53.462 Mathematical Statistics

53.491 Special Topics in Mathematics

Select two courses from one area in which statistics is applied, with advisor's approval (Biology, Economics, Geography, Geology, Psychology)

## Mathematics (B.A.)

Advisement should be considered before selecting general education courses in this major.

Core Courses (all majors)

53.125 Calculus I

53.126 Calculus II

53.185 Discrete Mathematics

53.225 Calculus III

53.226 Calculus IV

53.241 Probability and Statistics

53.310 Introduction to Abstract Algebra

## Mathematics (B.S.)

Advisement should be considered before selecting general education courses in this major. A 9-semester-hours concentration in a special interest area within mathematics or in a related discipline; areas of concentration available upon request.

Core Courses (all majors)

- 53.125 Calculus I
- 53.126 Calculus II
- 53.185 Discrete Mathematics
- 53.225 Calculus III
- 53.226 Calculus IV
- 53.241 Probability and Statistics
- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra
- 56.121 Computer Science I
- 54.211 General Physics I
- 54.212 General Physics II

**Bachelor of Science in Mathematics** - Required courses: At least one 3-semester-hours computer science course numbered 56.122 or above. At least three 3-semester-hours mathematics courses at the 300 level including at least one from the classical core consisting of:

- 53.322 Differential Equations
- 53.331 Modern Geometry
- 53.341 Statistical Methods
- 53.360 Number Theory
- 53.411 Introduction to Group Theory
- 53.421 Advanced Calculus
- 53.422 Complex Variables
- 53.451 Introduction to Topology

Courses 53.311 and 56.305 may not be counted as requirements for the major.

## Minor in Mathematics

The program requires 21 hours of mathematics courses. The quality point average of all courses applied to the minor in Mathematics must be at least 2.0 based on a 4.0 system. Required courses are:

- 53.125 Analysis I
- 53.126 Calculus II
- 53.185 Discrete Mathematics
- 53.225 Calculus III

At least three courses (9 semester hours) chosen a list of upper-level courses:

- 53.231 College Geometry
- 53.226 Calculus IV
- 53.241 Probability and Statistics

- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra
- 53.322 Differential Equations
- 53.331 Modern Geometry
- 53.341 Statistical Methods
- 53.360 Number Theory
- 53.361 Coding and Signal Processing
- 53.381 Introduction to Operations Research
- 53.421 Advanced Calculus
- 53.422 Complex Variables
- 53.451 Introduction to Topology

## Minor in Statistics

This program requires 18 semester hours of credit, at least 15 of which must be in the Department of Mathematics, Computer Science and Statistics. Students within the Department of Mathematics, Computer Science and Statistics may apply the following courses toward the minor:

- 53.341 Statistical Methods
- 53.342 Design and Analysis of Experiments
- 53.343 Applied Regression Analysis
- 53.461 Probability Models and Applications
- 53.462 Introduction to Mathematical Statistics
- 53.491 Special Topics in Mathematics

One course related to applications of statistics from other departments, with approval of adviser.

Students from departments other than mathematics and computer science may apply the following courses to the minor: 53.241 and courses listed above for students with the Department of Mathematics, Computer Science and Statistics; or select courses from the following list (select one of):

- 53.141 Introduction to Statistics
- 45.260 Basic Social Statistics
- 48.160 Basic Statistics
- 40.346 Business and Economic Statistics
- 53.123 Essentials of Calculus
- 53.125 Analysis I
- 53.342 Design and Analysis of Experiments
- 53.343 Applied Regression Analysis
- 53.491 Special Topics in Mathematics
- 53.492 Independent Study in Mathematics

Courses outside the department recommended for the minor are:

- 40.400 Introduction to Econometrics
- 40.446 Business and Economic Statistics II
- 48.464 Advanced Experimental Design
- 50.351 General Ecology
- 82.306 Methods of Inquiry
- 45.466 Social Research

# Department of Mass Communications

## Mass Communications (B.A.)

In addition to general education requirements, a total of 36 semester hours is required for a major in Mass Communications. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses. The department's curriculum ensures better preparation for today's changing communications industry. Graduates are broadly trained for careers in public relations, advertising, journalism and telecommunications. It is organized around three competency areas: theoretical knowledge, writing proficiency and professional development.

Required courses include:

- 27.110 Mass Communications and the Popular Arts
- 27.230 Newswriting
- 27.241 Media Graphics or 27.271 Media Operations
- 27.310 Media Law
- 27.315 Social Foundations of the Mass Media
- 27.360 Mass Media Processes and Effects

Choose two from the following six courses:

- 27.334 Editing

- 27.340 Feature Writing
- 27.352 Publicity and Public Relations
- 27.366 Design in Advertising
- 27.371 Broadcast Journalism
- 27.440 Public Affairs Reporting
- 27.485 RTF Authorship Theory and Practice

Choose three from the following eleven courses:

- 27.251 PR Theory and Practice
- 27.261 Principles of Advertising
- 27.297 Mass Communications Practicum
- 27.367 TV Acting and Directing
- 27.375 Broadcast Programming and Management
- 27.390 Film and Video Production
- 27.435 Journalism Workshop
- 27.446 Magazine Editing and Production
- 27.455 Public Relations Cases and Problems
- 27.466 Advertising Media and Campaigns
- 27.480 Telecommunications Workshop

Choose one from the following three courses:

- 27.420 Audience Analysis
- 27.482 Mass Communications Seminar
- 27.497 Internship

# Department of Management

## Management (B.S.B.A.)

The four year (128 credit hours) bachelor's degree consists of 65 semester hours of General Education requirements, 24 hours of Business Core, 24 hours of specialized Management requirements, and 15 hours of Elective Courses in Business. Students are allowed 8-11 hours of Free Electives while meeting communication, natural, and social sciences, humanities, physical education, values and ethics, and cultural diversity requirements of General Education.

While some flexibility exists in the selection of courses, the management program requires students to complete the following courses as part of general education requirements.:

- 20.101 English Composition I
- 20.201 English Composition II (or 20.104 Honors Composition)
- 25.103 Public Speaking
- 40.121 Principles of Economics I
- 40.122 Principles of Economics II
- 40.256 Business and Economic Statistics

Choose one of the following two courses:

- 40.246 Business and Economics Mathematics
- 53.123 Essentials of Calculus

Business Core:

- 92.150 Introduction to Information Technology
- 91.220 Financial Accounting
- 91.223 Managerial Accounting
- 97.310 Marketing: Principles and Practice
- 93.344 Principles of Management
- 98.331 Law and Legal Elements
- 96.313 Introduction to Corporate Finance
- 93.481 Business Policies and Strategies

Specialized Management Requirements (subject to change due to continuous improvement of curriculum. Check with department chair)

- 93.345 Human Resource Management
- 93.348 Operations Management
- 93.445 Managerial Communications
- 93.449 Organizational Behavior
- 93.457 Business and Society
- 93.456 International Management
- Plus two management electives

Elective Courses in Business

Select five courses in business to complete a minimum of 63 semester hours. Courses designated with a 91, 92, 93, 96, 97 or 98 prefix are business electives. Students must consult with their advisors when selecting and scheduling courses.

## Human Resources Concentration

Students with a Human Resources Management Concentration are required to take the following courses:

- 93.345 Human Resource Management
- 98.460 Employment Discrimination and Affirmative Action
- 93.463 Employee Staffing
- 93.464 Compensation Management

93.432 Internship in Management

Choose one of the following two courses:

- 93.346 Labor and Industrial Relations
- 94.405 Training and Development in Office Systems

## Master of Business Administration

All MBA program courses are taught by College of Business graduate faculty. Graduate faculty are dedicated teachers with doctoral degrees who have demonstrated subject area expertise by extensive experience and/or scholarship. MBA faculty provide an active learning experience with a variety of teaching methods, such as, case studies, applied research, problem solving, and team projects.

One of the strengths of the MBA program is the high quality of students enrolled. Recent graduates scored an average of 500 on the GMAT. Most bring considerable business experience to the classroom. As of Spring 2001, the 70 active students were comprised of 31 percent female and 69 percent male, with an average age of 36. About 10 percent of the MBA students are foreign nationals. The program has about 500 alumni pursuing careers around the world.

### Admission

The program admits students based on an evaluation of past academic achievement, aptitude for advanced study, professional accomplishments, and motivation to succeed. Applicants must provide a completed application to the Dean of Graduate Studies and Research (570) 389-4015. The MBA Coordinator will evaluate MBA applicants with complete applications. Complete applications include the following items:

Official transcripts from an accredited academic institution indicating an earned baccalaureate degree.

Official transcripts from all institutions where the applicant earned undergraduate or graduate college credit must be provided. Degrees earned from non-United States universities will be judged individually.

Official Graduate Management Admission Test (GMAT) scores within the 5 prior years.

Three letters of recommendation.

A current resume.

International applicants whose native language is not English must provide official Test of English as a Foreign Language (TOEFL) score within the prior year as well as current evidence of financial capability. International applications must be complete at least four months prior to the start of the semester of application

### Required courses

The curriculum consists of 36 graduate credit hours delivered in eight required and four elective courses. Students without sufficient preparation also complete prerequisite foundation courses.

**Foundation Courses** - Students must possess the common body of knowledge essential for the advanced study in business. Students with an undergraduate degree in business will likely have taken courses covering those areas. Students with non-business undergraduate degrees will usually be lacking at least some of these courses and therefore must take foundation courses to make up for this deficit.

Foundation courses are not included in the 36 hours of credit required for the MBA degree.

The following chart lists foundation courses and their undergraduate equivalents. Students who have earned a C or better in an undergraduate equivalent course are exempted from taking the foundation course

**Foundation Course, Undergraduate Equivalent**

40.512 Economic Theory: Micro Economics and Macro Economics

91.504 Introduction to Financial Accounting: Principles of Management

93.500 Managerial Principles: Principles of Management

93.511 Statistical Analysis and Design: Inferential Statistics and a college-level math course

97.510 Marketing Foundations: Principles of Marketing

**Core Courses** - All students are required to take the eight core courses. These courses cover the core of knowledge of a business education in the basic function areas of accounting, finance, management and marketing and the supporting field of management information systems. Strategic management is the capstone course of a business education program and is the major integrative force in an MBA program. It is here that specific information from the functional areas is put together to address the concerns of the total firm.

91.524 Managerial Accounting

92.554 Management Information Systems

93.558 Social Responsibility and Business Ethics

93.560 Operations Management

93.566 Organizational Behavior

93.581 Strategic Management

96.535 Financial Management

97.551 Marketing Management

**Elective Courses** - select four courses from the following list:

91.501 Financial Accounting

91.502 Advanced Financial Accounting

91.503 Government and Fund Accounting

91.521 Advanced Cost Accounting

91.522 Advanced Auditing Theory

91.523 Advanced Tax Accounting

91.551 International Accounting

91.552 Controllershship

93.540 Small Business Institute Seminar

93.545 Human Resource Management

93.556 International Management

93.562 Organizational Theory

93.547 Quantitative Models for Management

93.583 Human Resources Development

96.540 International Finance

96.550 Security Analysis and Portfolio Management

97.552 Marketing Research

98.507 International Legal Environment of Business

Special Topics

**Concentrations** - While the MBA is a generalist degree, preparing graduates to be able to understand a broad

overview of the workings of a firm, the program provides students the opportunity to take their four elective courses in a single area, thus "concentrating" their studies in that field. The provision of a concentration thus allows a student to develop greater depth in a particular area. Concentrations include Leadership and Managerial Skills, Management Science/Operations Management, and Accounting.

**Leadership and Managerial Skills** - Many of the students enrolled in the MBA program seek to become managers, executives, administrators or program directors in their chosen professions, such as advertising, banking, finance, health, hotels, manufacturing, restaurants, transportation and utilities. The possession of strong leadership and people management skills is a crucial prerequisite for success in these fields.

The concentration consists of four required courses:

93.584 Seminar in Leadership

93.567 People Management Skills

93.582 HR Skills for Managers

93.532 Professional Development Skills

Seminar on Leadership introduces the students to leadership theory and its application to business management. Specifically the course covers theories of leadership and sources and uses of power in the organization. People Management Skills and HR Skills for Managers are experiential type courses that focus on developing the interpersonal skills needed by managers, such as communication, motivation, conflict management, leading teams, employee staffing, employee development and performance appraisal. Professional Development Skills, also an experiential course, focuses on developing the students' personal skills that are necessary for effective leadership, like developing self-awareness and confidence, effective decision-making, business etiquette and stress and time management.

**Management Science/Operations Management** - This concentration is designed to develop the quantitative and decision-making skills necessary for managers working in a manufacturing setting. The courses are designed to enhance the students' competencies in the areas of database decision making.

The concentration consists of four required courses:

93.520 Business Research Methods

93.547 Quantitative Models for Management

93.548 Decision Models for Managers

93.549 Quality Management

These courses build significantly on the foundation courses of 93.500 Managerial Principles and 93.511 Statistical Analysis and Design, and the core course of 93.560 Operations Management. Each course brings a unique and different blend of management theory and applied mathematical models to the students.

**Accounting** - This concentration is designed to enhance the MBA student's ability to move into and advance in the accounting/finance area.

Students with an accounting concentration will take the following courses:

Required:

91.521 Advanced Cost Accounting

91.523 Advanced Tax Accounting

91.522 Controllershship

Elective - Choose one of the following:

91.551 International Accounting

91.522 Advanced Auditing Theory

91.501 Financial Accounting

These courses provide the student with advanced knowledge of accounting processes within organizations, including cost systems, tax policies and finance/accounting department management. The elective option provides students with advanced knowledge of a particular area of interest.

# Department of Marketing

## Marketing (B.S.B.A)

Among 64 semester hours of general education requirements, English 20.101 and 20.201 and 25.103 Public Speaking are required. A total of 64 semester hours is required for a major in marketing under the business administration degree program.

Required general education courses for the Marketing curriculum include:

- 40.121 Principles of Economics I
- 40.122 Principles of Economics II
- 40.256 Business and Economic Statistics I
- 48.101 General Psychology
- 53.118 Applied Matrix Algebra

Choose one of the following two courses:

- 40.246 Business and Economics Mathematics
- 53.123 Essentials of Calculus

### College of Business Core

- 91.220 Financial Accounting
- 91.223 Managerial Accounting
- 92.150 Introduction to Information Technology
- 93.344 Principles of Management
- 93.481 Business Policies and Strategies
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing Principles and Practice
- 98.331 Law and Legal Environment

### Marketing Requirements

- 97.330 Consumer Motivation and Behavior
- 97.370 Sales Management
- 97.380 International Marketing
- 97.440 Marketing Research
- 97.340 Advertising Management
- 97.460 Marketing Management
- 3 semester hours of a marketing elective that may also be used as a business elective:
  - 97.320 Marketing for Nonprofit Organizations
  - 97.350 Retail Management Concepts
  - 97.432 Internship in Marketing
  - 97.480 Industrial Marketing Strategy

97.490 Contemporary Problems and Issues

**Electives in Business** - Select courses in business to complete a minimum 64 semester hours. In selecting an elective, the student is reminded to have the proper prerequisites.

Courses designated with a 90, 91, 92, 93, 94 96, 97 or 98 prefix are business courses. Additional courses permitted as electives include:

90.101 Introduction to Business (Note: 90.101 will not be allowed for credit as a business elective once a student has completed 6 semester hours in business administration courses.)

**General education electives** - Select general education courses needed to meet the 128-semester hour graduation requirement.

Select free elective courses as needed to meet the 128 semester hours required for graduation.

## Minor in Marketing

The minor in marketing provides students both within and outside of the College of Business with a broad exposure to marketing theory and technique. The minor is designed for students to apply marketing practices successfully to their major discipline. The minor consists of 18 semester hours, 12 of which must be taken at Bloomsburg University.

Required courses include:

- 97.310 Marketing Principles and Practices
- 97.330 Consumer Motivation and Behavior
- 97.440 Marketing Research
- 97.460 Marketing Management

Choose two from the following eight courses:

- 97.320 Marketing for Nonprofit Organizations
- 97.340 Advertising Management
- 97.350 Retail Management Concepts
- 97.370 Sales Management
- 97.380 International Marketing
- 97.432 Internship in Marketing
- 97.480 Industrial Marketing Strategy
- 97.490 Contemporary Problems and Issues

# Department of Music

## Music (B.A.)

### Music Education Certification, K-12, Track

In addition to 53 credits of general education requirements and requirements of the major, students select elective courses to complete the university requirement for a bachelor of arts degree.

Students with a concentration in Music Education Certification K-12 will:

- comprehend the principles of music theory and display aural acuity
- understand the historical period contribution to music in both cultural and artistic context
- participate in ensembles
- meet the performance requirements of applied study
- apply voice, strings, brass, percussion and woodwinds pedagogical methodologies
- display functional keyboard skills
- develop a music curriculum including strategies for diverse learners
- conduct choral and instrumental ensembles
- present a recital
- use music technology
- compose and critique
- write daily lesson plans and thematic units in preparation for the teaching profession

**Assessment Criteria and Procedures:** The culmination of the Music Education Certification, K-12 track is one semester of student teaching experience. Because the certification is K-12, the student teaching experience will include both elementary and secondary assignments.

The student will be evaluated by the cooperating teacher, the music content specialist, and the university supervisor.

Required courses include:

Content Area:

- 35.101 Music Listening
- 35.201 Sight Singing
- 35.203 Voice Methods
- 35.206 String Methods
- 35.207 Brass Methods
- 35.209 Percussion Methods
- 35.210 Music Theory I
- 35.211 Music Theory II
- 35.231 General Conducting
- 35.232 Woodwind Methods I
- 35.233 Woodwind Methods II
- 35.300 Music Theory III: Form and Analysis
- 35.301 Music Theory IV: Twentieth Century Practice
- 35.321 Music History to 1750
- 35.322 Music History 1750 to Present

Choose one from the following two courses:

- 35.328 Choral Conducting and Methods
- 35.329 Instrumental Conducting and Methods
- 35.410 Music Theory V: Counterpoint
- 35.411 Music Theory VI: Orchestration

The list above includes three of the 53 credits of General Education requirements; others are specifically listed on the Checklist of requirements for the Music Education track. Students should consult with their advisors to plan their course of study. Students will take courses for Profession Teacher Education in conjunction with the Department of Educational Studies and Secondary Education as listed below.

Seven semesters of applied instruction on the same instrument; six at 1 credit, one at 2 credits. A half-hour recital in the seventh semester on the same instrument. 10 semesters (at least 3 at 1 credit) of ensemble participation.

Ensembles available to all tracks:

- 35.106 Maroon and Gold Band (Marching in fall, Concert in spring)
- 35.107 University-Community Orchestra
- 35.108 Concert Choir
- 35.109 Women's Choral Ensemble
- 35.110 Husky Singers (male chorus)
- 35.111 Chamber Singers
- 35.112 Jazz Ensemble
- 35.170/370 Chamber Orchestra

Professional Teacher Education: 30 credits

- 60.204 Educational Computing and Technology
- 60.311 Educational Measurements and Evaluation
- 65.374 Teaching of Reading in Academic Subjects

Choose one from the following two courses:

- 60.393 Social Foundations of Education
- 60.406 Multicultural Education
- 35.319 Secondary Methods and Curriculum in Music
- 35.331 Elementary Methods and Curriculum in Music
- 60.497 Student Teaching
- 60.498 Student Teaching

**Piano proficiency examination** - All Music Education students must exit

with an acceptable level of keyboard proficiency. Course 35.302 Piano

Proficiency may be elected and repeated to aid in the passage of the exam, but election of 35.302 may not be sufficient in itself to guarantee passage of the exam. See your adviser for details.

## Music (B.A.)

### Music History and Literature Track

In addition to 53 credits of general education requirements, and requirements of the major, sufficient elective courses are selected by the student to reach the university's 128-credit requirement for a bachelor of arts degree.

### Assesment Criteria and Procedures

Through their work in two music history seminars, students will select a research topic. They will prepare a written paper, as well as a presentation, which will be delivered on presentation day to department faculty and students. The professor and audience will provide feedback and ask for

clarification of issues, which are not fully illuminated in the lecture or paper. The written paper will be judged for its suitability for publication in scholarly journals, which publish undergraduate student research in music history and literature.

Required courses include:

- 35.101 Music Listening
- 35.201 Sight Singing
- 35.210 Music Theory I
- 35.211 Music Theory II
- 35.300 Music Theory III: Form and Analysis
- 35.301 Music Theory IV: Twentieth Century Practice
- 35.321 Music History to 1750
- 35.322 Music History 1750 to Present
- 35.324 American Music
- 35.325 Opera and Music Theater
- 35.327 Survey of Popular Music
- 35.410 Music Theory V: Counterpoint
- 35.411 Music Theory VI: Orchestration
- 35.430 Seminar in Music History I
- 35.431 Seminar in Music History II

4 semester hours of applied instrument or voice study at 1 credit each; need not be the same voice or instrument.

6 semesters (at least 4 at 1 credit) of ensemble participation. Ensembles available to all tracks:

- 35.106 Maroon and Gold Band (Marching in fall, Concert in spring)
- 35.107 University-Community Orchestra
- 35.108 Concert Choir
- 35.109 Women's Choral Ensemble
- 35.110 Husky Singers (male chorus)
- 35.111 Chamber Singers
- 35.112 Jazz Ensemble
- 35.170/370 Chamber Orchestra

**Piano proficiency examination** - All Music History and Literature track students must exit with an acceptable level of keyboard proficiency. Course 35.302 Piano Proficiency may be elected and repeated to aid in the passage of the exam, but election of 35.302 may not be sufficient in itself to guarantee passage of the exam. See your adviser for details.

## Music (B.A.)

### Applied Music Track

In addition to 53 hours of general education requirements and requirements of the major, students choose electives to complete the 128-credit requirement for a bachelor of arts degree. Students with a concentration in applied music will be capable of presenting a full-length recital reflective of their progress in applied music studies (technique and interpretation). This performance should also exhibit a synthesis of the cognate areas of music history and music theory.

**Assessment Criteria and Procedures:** A committee of three faculty members from the department of music will evaluate these presentations according to the procedures and criteria for assessment of the recital projects as delineated in Music Department Policy 5. The student will be evaluated at a recital

preview, which will consist of the repertoire from the student's recital program and will be presented in the same manner in which it is intended to be presented at the final recital. The results of this recital preview will determine if the student may proceed with the recital.

Required courses include:

- 35.101 Music Listening
- 35.201 Sight Singing
- 35.210 Music Theory I
- 35.211 Music Theory II
- 35.300 Music Theory III: Form and Analysis
- 35.301 Music Theory IV: Twentieth Century Practice
- 35.321 Music History to 1750
- 35.322 Music History 1750 to Present
- 35.410 Music Theory V: Eighteenth Century Counterpoint
- 35.411 Music Theory VI: Orchestration

6 semesters of the student's choice of vocal or instrumental ensemble, four at one credit per semester and two semesters minimum at zero credit. Ensembles available to all tracks:

- 35.106 Maroon and Gold Band (Marching in fall, Concert in spring)
- 35.107 University-Community Orchestra
- 35.108 Concert Choir
- 35.109 Women's Choral Ensemble
- 35.110 Husky Singers (male chorus)
- 35.111 Chamber Singers
- 35.112 Jazz Ensemble
- 35.170/370 Chamber Orchestra

8 semesters of the same instrument or voice (one hour of lessons per week for two credits per semester) for a total of 16 credits. Choices include violin, viola, violoncello, double bass, organ, voice, piano, trumpet, horn, trombone, baritone, tuba, flute, oboe, clarinet, bassoon and saxophone.

Applied music students must perform a public recital in their junior and senior years at zero credit. A faculty committee screens recital programs.

**Piano proficiency examination** - All Applied track students must exit with an acceptable level of keyboard proficiency. Course 35.302 Piano Proficiency may be elected and repeated to aid in the passage of the exam, but election of 35.302 may not be sufficient in itself to guarantee passage of the exam. See your adviser for details.

Instrumental majors are encouraged to elect acoustics, 54.105 The Science of Sound to meet the natural sciences general education requirement.

**Special requirements for voice students:** Listed below are the required 15 credits of free electives from Languages and Cultures. Other course levels may be recommended instead, as appropriate for demonstrated language proficiency. Voice majors are also encouraged to take 35.325 Opera/Music Theater.

- 10.100 French I
- 10.101 French II
- 11.100 German I
- 11.101 German II
- 14.101 Italian I

# Department of Nursing

## Nursing (B.S.N.)

A total of 63 semester hours is required for a major in nursing. In addition to the major, all students must satisfy 53 semester hours of general education requirements; a bachelor's degree at Bloomsburg requires a total of 128 semester hours of study. A number of the prescribed courses in the physical sciences and social sciences, required as prerequisites for the nursing curriculum, may also apply toward general education requirements.

Requirements for the Major - Generic Students

### Prerequisite courses

- 48.101 General Psychology
- 48.210 Life-Span Psychology
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 50.240 Introductory Microbiology
- 52.101 Introductory Chemistry
- 52.108 Physiological Chemistry

Choose one of the following three courses:

- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 46.200 Principles of Cultural Anthropology

### Professional Courses

- 82.200 Psychomotor Skills for Sophomores
- 82.210 Professional Nursing
- 82.211 Nutrition
- 82.212 Pharmacology
- 82.213 Foundations of Nursing Practice
- 82.214 Health Assessment
- 82.215 Pathophysiology for Nursing Practice
- 82.300 Psychomotor Skills for Juniors
- 82.306 Introduction to Nursing Research (a statistics course, either 48.160 Statistics or 53.141 Introduction to Statistics is prerequisite)
- 82.310 Family Nursing
- 82.311 Adult Health I
- 82.312 Maternal and Child Health Nursing
- 82.410 Community Health Nursing
- 82.411 Psychiatric/Mental Health Nursing
- 82.412 Adult Health II
- 82.414 Nursing Management/Leadership

**Elective Courses** - Additional courses must be taken as necessary to complete the minimum graduation requirement of 128 semester hours.

Requirements for the Major - R.N. Students

### Prerequisite courses:

- 48.101 General Psychology
  - 48.210 Life-Span Psychology
  - 50.173 Anatomy and Physiology I
  - 50.174 Anatomy and Physiology II
  - 50.240 Introductory Microbiology
  - 52.101 Introductory Chemistry
  - 52.108 Physiological Chemistry
- Choose one of the following three courses:

- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 46.200 Principles of Cultural Anthropology

### Professional Courses:

- 82.214 Health Assessment
- 82.215 Pathophysiology for Nursing Practice
- 82.305 Role Development for the Nurse Generalist (RN)
- 82.306 Introduction to Nursing Research (a statistics course, either 48.160 Statistics or 53.141 Introduction to Statistics is prerequisite)
- 82.310 Family Nursing
- 82.410 Community Health Nursing
- 82.414 Nursing Management/Leadership in Nursing

**Elective Courses** - Additional courses must be taken as necessary to complete the minimum graduation requirement of 128 semester hours.

## Nursing (M.S.N.)

**Admission** - All admission requirements must be fulfilled no later than 3 credits or one semester of study into the program. All application materials should be submitted to the Office of Graduate Studies.

**1. B.S.N.-M.S.N. Program:** In addition to meeting the general admission requirements for the School of Graduate Studies, applicants with a B.S.N. must comply with the following criteria:

- A baccalaureate degree in nursing from a nationally-accredited school program
- A license to practice professional nursing in the state of Pennsylvania
- A minimum of one year of direct care clinical practice (post baccalaureate) within the past two years in the selected clinical specialty area (for the adult nurse practitioner option, this direct care experience must be in adult health)
- Graduate Record Examination (GRE) scores of at least 400 on each section (verbal, quantitative and analytical); the test must have been taken within five years of application to the program
- An undergraduate quality point average (QPA) of at least 3.0 on a 4.0 scale
- Satisfactory completion of the following undergraduate courses: statistics, research and health assessment (as a separate course or integrated concept)
- Three current letters of professional and/or academic recommendation
- A resume which includes description of professional nursing or clinical experience
- A narrative describing personal and professional goals for graduate education (rationale and goals for the selected area of advanced practice must be included)
- Personal interview following submission of admission materials with option adviser and/or program coordinator.

II. R.N.-M.S.N. Program: The Nursing Department also offers an R.N.-M.S.N. program. Applicants with an R.N. must meet criteria 2-4 and 7-10 above and must also meet the following criteria:

Placement according to Bloomsburg University articulation model.

Submission of an application that includes an official secondary school transcript and official college transcript from each school attended, regardless of whether credit was earned at the other institution(s).

III. M.S.N. to N.P. Program: Post master's applicants may apply to the nurse practitioner program in one of the following ways:

If M.S.N. is from Bloomsburg University, write a letter requesting reactivation as a student. A narrative explaining the student's goals is required.

If M.S.N. is from another university, follow admissions requirements for B.S.N.-M.S.N. applicant; however, GRE's are not required.

IV. C.R.N.A., C.R.N.P., C.N.M. to M.S.N. Program: C.R.N.A.'s, C.R.N.P.'s and C.N.M.'s may apply to the M.S.N. program by meeting all of the criteria stated under the B.S.N. to M.S.N. program above. Additionally, documentation of successful completion of a nurse anesthetist, nurse practitioner or nurse midwifery program must be submitted.

Applicants to the MSN/MBA option should submit application materials to both nursing and business simultaneously.

Applicants who have not fulfilled the identified requirements for admission will be considered on an individual basis. Applicants may be admitted on a provisional basis until potential abilities for graduate education are demonstrated. After students have been notified of admission to the graduate program, they are required to schedule a program planning session with their assigned graduate faculty adviser.

**Progression and Retention.** In order to progress within the program, students must receive a minimum grade of B in advanced clinical courses and maintain the QPA of 3.0 specified by the university. The department retention policy is the same as that of the university except any grade of C in a clinical course must be repeated.

**Transfer of Credit.** A maximum of nine semester hours in graduate courses taken at other approved colleges or universities may be transferred and credited toward the program if they are applicable to the requirements and are approved by the specialty area adviser and the assistant vice president and dean for graduate studies and research. Courses being transferred must have been taken in residence; must have been assigned a grade of B or higher; and must have covered content which is required for a particular program option or recommended by the clinical adviser for elective credit.

Graduate students must request permission for transfer of credit from the assistant vice president and dean for graduate studies and research once written approval has been obtained from the clinical option adviser.

**Dismissal from the nursing program.** The graduate faculty reserve the right to counsel or dismiss any student who, in their judgment, does not satisfy the requirements of scholarship, health, and personal suitability for advanced practice nursing. Students unable to continue in the program are those who do not meet the Department of Nursing's

Performance Standards for Admission and Progression as stated in the preceding section or who are deemed unsuitable for personal reasons. Personal behaviors expected of students are based on standards from the American Nurses' Association Code for Nurses. Examples of nursing activities reflecting expected personal behaviors (not inclusive) include the following:

Demonstrates personal responsibility, accountability, integrity and honesty;

Demonstrates respect for clients and their rights;

Avoids behavior inconsistent with professional standards such as chemical dependency and abuse or engaging in or supporting criminal behavior.

**Graduation Requirements.** Upon fulfillment of the following, the student is awarded a master of science in nursing degree:

Completion of all coursework, attaining the grades required and maintaining a minimum cumulative QPA of 3.0  
Completion of a comprehensive examination offered at the conclusion of the final clinical course in each of the specialty areas. The exam is not included as part of any course grade and meets university guidelines. Completion of a comprehensive program assessment exit interview held with the program coordinator for the purposes of providing student input for program evaluation.

## Required courses

Students may select either full-time or part-time study depending on their individual needs. Classes are scheduled in late afternoon and evening to facilitate progression in either type of study. In addition, many courses are offered online. Clinical courses usually require experiences held during the day as dictated by the work schedules of the clinical preceptors and the hours of operation of the clinical facility.

Core courses are required for all areas of specialization. This reflects the philosophy that advanced nursing practice shares a common theoretical basis regardless of specialization.

Core courses for all program options (12 credits)

82.501 Theoretical Bases for Role Development in Advanced Nursing Practice - 3

82.502 Epidemiology: Concepts for Advanced Nursing Practice - 3

82.503 Bases of Research for Advanced Nursing Practice - 3

82.520 Community Assessment and Planning - 3

Sequence for Adult and Family Nurse Practitioner Specialization (30-41 additional credits)

Additional Core Courses for Adult and Family NP (12 credits)

82.504 Pathophysiology for Advanced Nursing Practice - 3

82.507 Pharmacology for Advanced Nursing Practice - 3

82.508 Adult Health Assessment and Promotion (clinical) - 6

Clinical Sequence for Adult and Family Nurse Practitioner (18 credits)

82.515 Diagnosis and Management of Health Problems in Adults I (clinical) - 6

82.516 Diagnosis and Management of Health Problems in Adults II (clinical) - 6

82.534 Adult Nurse Practitioner Practicum and Seminar (clinical) - 6

Additional courses for Family Nurse Practitioner (11 credits)

82.517 Diagnosis and Management of Children and Pregnant Women (clinical) - 8

82.522 Family Health Nursing Theory - 3

Sequence for Community Health Specialization (27 additional credits)

EITHER :

Required for Public Health Administration:

91.524 Managerial Accounting - 3

93.545 Human Resource Management - 3

OR:

Required for School Health:

70.516 Psychology of Exceptional Individuals - 3

82.509 Theory in School Nursing - 3

82.521 Nurse as Health Educator Within School System - 3

AND:

82.511 Community Health Nursing I (clinical) - 6

82.531 Community Health Nursing II (clinical) - 6

Elective - Graduate-level courses to fulfill elective requirements are chosen by the student and an adviser based on career needs, clinical requirements and role development of a clinical nurse specialist. Electives may be selected from graduate courses in psychology, political science, business, communication disorders, speech communication, education and nursing. (6-9)

Adult Health and Illness Specialization (15 additional credits)

Additional Core Courses for Adult Health and Illness CNS (12 credits)

82.504 Pathophysiology for Advanced Nursing Practice - 3

82.507 Pharmacology for Advanced Nursing Practice - 3

82.508 Adult Health Assessment and Promotion (clinical) - 6

Clinical Courses (12 credits)

82.512 Adult Health and Illness I (clinical) - 6

82.532 Adult Health and Illness II (clinical) - 6

Elective - Elective requirements are as described under the community health specialization - 3

Nursing Administration Specialization (30 credits)

Business Courses (18 credits):

40.512 Economic Theory - 3

93.566 Organizational Behavior - 3

91.504 Introduction to Financial Accounting -3

93.500 Managerial Principles - 3

91.524 Managerial Accounting - 3

92.554 Management Information Systems - 3

Clinical Practicum (12 credits):

82.513 Management and Organizational Behavior in Nursing Administration (clinical) - 6

82.533 Management and Organizational Behavior in Health Care Delivery Systems (clinical) - 6

Optional Completion of Master's in Business Administration (15 additional credits)

97.551 Marketing Management - 3

93.560 Operational Management - 3

96.535 Financial Management - 3

93.558 Business Ethics - 3

93.581 Strategic Management - 3

Options for Certified Nurse Anesthetists, Nurse Practitioners and Nurse Midwives - (30 credits total)

Advanced placement credits are awarded to those individuals already certified and practicing as a CRNA, CRNP, or CNM.

Completion of the MSN requires 30 credits as described below.

82.501 Theoretical Bases for Role Development in Advanced Nursing Practice - 3

82.502 Epidemiology: Concepts for Advanced Nursing Practice - 3

82.503 Bases of Research for Advanced Nursing Practice - 3

82.520 Community Assessment and Planning - 3

Education/Management Electives - 9

Independent Study, Clinical Project(s)/Thesis - 3-6

Electives - Elective requirements are as described under the community health specialization. - 3-6

# Department of Philosophy

## Philosophy (B.A.)

In addition to 54 semester hours of general education requirements, a total of 30 semester hours is required for a major in philosophy. The balance of the university's 128-hour requirement for a bachelor's degree comes from elective courses. The following courses are required:

Logic requirement

28.270 Logic

Historical requirement

28.321 Plato and Aristotle

28.324 Descartes to Kant

Choose one of the following two courses:

28.328 Existentialism

28.329 20th Century Philosophy

Elective Courses - Six elective courses must also be selected in addition to the required courses for this degree program.

Two courses must be from the 300 or above level sequence:

28.110 Critical Thinking

28.111 Introduction to Philosophy

28.290 Medical Ethics

28.292 Contemporary Moral Problems

28.295 Business Ethics

28.297 Ethics

28.403 Philosophy of Science

28.404 Philosophy of the Social Sciences

28.405 Philosophy of Law

28.406 Philosophy of Religion

28.407 Contemporary Political Philosophy

28.408 Feminist Philosophy

28.418 Contemporary Philosophy of Mind

28.419 Theory of Knowledge

28.420 Metaphysics

28.477 Philosophy of Ecology

## Minor in Philosophy

A total of 18 semester hours is required for a minor in philosophy. Required courses are:

28.111 Introduction to Philosophy

28.297 Ethics

Choose one of the following courses:

28.270 Logic

28.110 Critical Thinking

Choose three elective courses, including one from:

28.321 Plato and Aristotle

28.324 Descartes to Kant

28.328 Existentialism

28.329 20th Century Philosophy

or one systematic course (a 300 level or above course)

# Department of Physics and Engineering Technology

## Physics (B.A.)

The bachelor of arts program requires 54 semester hours and the bachelor of science program requires 71 semester hours for a major in physics. In each case, 15 of the required semester hours count toward general education requirements. Thus, in addition to the above program requirements, students must complete 39 semester hours in general education.

Bachelor of Arts required courses include:

- 54.211 General Physics I
- 54.212 General Physics II
- 54.302 Mechanics: Dynamics
- 54.310 Modern Atomic Physics
- 54.314 Electricity and Magnetism
- 54.400 Advanced Physics Laboratory
- 12 semester hours chosen from other physics courses numbered above 300
- 53.125 Calculus I
- 53.126 Calculus II
- 53.225 Calculus III
- 53.322 Differential Equations
- 56.116 Algorithmic Processes for Computers
- 52.115 Fundamentals of Inorganic Chemistry
- 52.216 Chemical Principles and Measurements

## Physics (B.S.)

Bachelor of Science required courses include:

- 54.211 General Physics I
- 54.212 General Physics II
- 54.302 Mechanics: Dynamics
- 54.310 Modern Atomic Physics
- 54.314 Electricity and Magnetism
- 54.315 Electronics
- 54.318 Optics
- 54.400 Advanced Physics Laboratory
- 54.422 Thermodynamics
- 54.450 Introduction to Quantum Mechanics
- 12 semester hours chosen from other physics courses numbered above 300
- 52.115 Fundamentals of Inorganic Chemistry
- 52.216 Chemical Principles and Measurements
- 53.125 Calculus I
- 53.126 Calculus II
- 53.225 Calculus III
- 53.322 Differential Equations
- 56.116 Algorithmic Processes for Computers
- 3 semester hours chosen from the following three courses:
  - 53.226 Analysis IV
  - 53.314 Linear Algebra
  - 56.373 Numerical Methods in Computing

## Electrical and Electronic Engineering Technology (B.S.)

In addition to 39 semester hours of general education requirements of the university, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 53.113 Precalculus (if needed)
- 53.125 Calculus I
- 53.126 Calculus II
- 53.225 Calculus III
- 53.322 Differential Equations
- 54.211 General Physics I
- 54.212 General Physics II
- 54.315 Electronics
- 54.316 Digital Electronics
- 54.317 Microprocessor Electronics
- 56.121 Computer Science
- 58.101 Introduction to EEET
- 58.141 Circuit Analysis
- 58.180 Computer Aided Design and Engineering Graphics
- 58.231 Electric Power and Machinery
- 58.241 Electronic Instrumentation and Data Acquisition
- 58.300 Career Orientation
- 58.321 Manufacturing Processes
- 58.331 Linear Signals and Systems
- 58.380 Cooperative Education in Industry I
- 58.431 Industrial Process Control
- 58.441 Communications Systems
- 58.451 Digital Signal Processing
- 58.461 Radio Frequency Effects and Measurements
- 58.480 Cooperative Education in Industry II

## Engineering Science 3+2 (B.A.)

General Education Requirements - All candidates must satisfy the General Education requirements of Bloomsburg University and the specific requirements for the B.A. degree in either chemistry, physics or mathematics. Students should consult the program coordinator each semester as they plan their schedules. With careful planning, it is possible to satisfy all of the requirements indicated during the student's three-year residence at Bloomsburg University

Requirements for the Major

- 54.211 General Physics I
- 54.212 General Physics II
- 54.310 Modern Atomic Physics
- 52.115 Fundamentals of Inorganic Chemistry
- 52.116 Chemical Principles and Measurements
- 53.125 Calculus I
- 53.126 Calculus II
- 53.225 Calculus III
- 53.226 Calculus IV
- 53.322 Differential Equations
- 53.314 Linear Algebra

56.116 Algorithmic Processes or 56.121 Computer Science I

54.301 Mechanics: Statics

54.302 Mechanics: Dynamics

58.180 Computer Aided Design and Engineering Graphics

For a few particular engineering degree options, additional discipline-specific courses may also be required while the student is at Bloomsburg University.

## Health Physics (B.S.)

The bachelor of science program in health physics requires 68 semester hours, 15 of which count toward general education requirements. Thus in addition to program requirements, students must complete 39 semester of hours of general education requirements.

Required courses:

54.211 General Physics I

54.212 General Physics II

54.310 Modern Atomic Physics

54.315 Electronics

54.320 Nuclear Radiation I

54.330 Radiation Physics

54.360 Health Physics

54.420 Nuclear Radiation II

54.460 Applied Health Physics

59.498 Internship in Natural Sciences and Mathematics

53.125 Analysis I

53.126 Analysis II

53.225 Analysis III

53.241 Probability and Statistics

56.116 Algorithmic Processes for Computers

52.115 Fundamentals of Inorganic Chemistry

52.216 Chemical Principles and Measurements

50.110 Biology of Animals

50.120 Biology of Plants

50.411 Radiation Biology

# Department of Political Science

## Political Science (B.A.)

Administered by Political Science  
Effective Fall, 2001

In addition to the 54 semester hours of general education requirements, a total of 30 semester hours is required for a major in political science; the balance of the university's 128-semester hour requirement for a bachelor's degree come from elective courses. Required courses total 12 semester hours and include the following four courses in political science:

- 44.120 United States Government
- 44.160 Nations, States and Governments
- 44.210 Introduction to Political Theory
- 44.280 Introduction to International Relations

Elective Courses: 18 semester hours in Political Science, 12 semester hours of which must be chosen from upper division courses, i.e., at the 300 level or above.

**Requirements for Law option** - a total of 30 semester hours is required for this option. In addition to the core courses above, 18 hours are taken from the following eight courses:

- 44.440 President and Congress
- 44.446 Constitutional Law I

- 44.447 Constitutional Law II
- 44.448 Judicial Process
- 44.452 State and Local Government
- 44.456 Public Policy
- 44.487 International Law and Organization
- 44.497 Internship in a legal or judicial setting (only 3 hours count toward the option)

Requirements for the career concentration in public administration - A total of 27 hours (nine courses) is required. A student must take one course in each of the following areas: organization theory, policy, social psychology, communication, computer science, statistics, personnel, budgeting and planning.

## Minor in Political Science

A total of 18 semester hours (six courses) is required for a minor in political science. There is one required course: 44.160 Nations, States, Government. Students should consider building a minor around one of the fields of political science; namely, American politics, comparative government, international politics, political theory and law.

# Department of Psychology

## Psychology (B.A.)

In addition to 54 semester hours of university general education requirements, the program of study in psychology requires a minimum of 36 semester hours from the courses specified below:

**Freshman/Sophomore years:** core courses (18 semester hours) (Note: 48.281 and 48.282 must be taken sequentially. A grade of C or higher is required in 48.101, 48.160 and 48.281)

- 48.101 General Psychology
  - 48.160 Basic Statistics
  - 48.281 Experimental Psychology: Methodology
  - 48.282 Experimental Psychology: Applications
- Choose two from the following four courses:
- 48.211 Child Psychology or 48.212 Adolescence
  - 48.253 Social Psychology
  - 48.311 Adulthood and Aging

**Junior/Senior years** - content courses (12 semester hours)

Choose two from the following three courses:

- 48.360 Cognitive Psychology
- 48.375 Psychology of Learning
- 48.380 Behavioral Neuroscience

Choose one of the following two courses:

- 48.335 Abnormal Psychology
- 48.436 Theories of Personality

Choose one from the following seven courses:

- 48.321 Psychological Tests and Measurements
- 48.340 Community Psychology
- 48.350 Psychology of Sex and Gender
- 48.451 Laboratory Training in Group Processes
- 48.453 Organizational Psychology
- 48.476 Principles of Behavior Modification

**Senior year** - capstone courses (6 semester hours) - select two

courses from the following six courses:

- 48.341 Theory and Practice of Academic Psychology
- 48.356 Psychology of Motivation
- 48.401 History of Psychology
- 48.406 Psychology Seminar
- 48.464 Advanced Experimental Design
- 48.466 Independent Study in Psychology
- 48.497 Practicum in Psychology

## Minor in Psychology

A minimum of 18 semester hours in psychology is required for the minor in Psychology, as specified:

- 48.101 General Psychology
  - 48.160 Basic Statistics
  - 48.281 Experimental Psychology: Methodology
- 9 semester hours of Psychology courses, 6 of which must be at the 300 or 400 level.

# Department of Sociology, Social Work and Criminal Justice

## Sociology (B.A.)

In addition to 54 semester hours of general education requirements, a total of 36 semester hours is required for a major in sociology. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses.

### Core courses:

- 45.211 Principles of Sociology
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.462 Sociological Theory

**Sociology Major** - Students also must select eight additional courses, 24 semester hours, from Sociology courses; four of these must be drawn from 300 and 400 level courses. The sociology internship and social work courses may not be counted as part of these eight courses.

### Applied Sociology option

- 45.211 Principles of Sociology
  - 45.255 Research Methods for Social Inquiry
  - 45.260 Basic Social Statistics
  - 45.462 Sociological Theory
  - 45.316 Urban Sociology
  - 45.461 Social Problems of Urban/Rural Communities
- Choose three from the following six courses:
- 45.213 Contemporary Social Problems
  - 45.490 Sociology of Aging
  - 45.345 Medical Sociology
  - 45.465 Computer Applications
  - 45.468 Social Service Planning
  - 45.441 Social Indicators

Three additional courses within the department, one of which must be a sociology course  
An internship (6-15 semester hours)

## Social Work (B.A.)

In addition to 54 semester hours of general education requirements, a total of 46 to 54 semester hours is required for a major in social work. The balance of the university's 128-semester hour requirement for a bachelor's degree come from elective courses. For information about admission criteria and details on the course sequence, see Charles Laudermlch, director of the social work program. Required courses for this degree program include:

- 40.121 Principles of Economics
- 44.120 United States Government
- 45.133 Introduction to Social Work and Social Welfare
- 45.211 Principles of Sociology
- 45.221 Social Work and Diversity
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.297 Introductory Practice in Social Work
- 45.334 Social Work Practice with Individuals and Families

- 45.450 Social Work Practice with Small Groups
  - 45.452 Social Work Practice With Organizations and Communities
  - 45.453 Social Work Policy and Services
  - 45.462 Sociological Theory
  - 45.497 Social Work Internship
  - 45.498 Integrative Seminar in Social Work and Social Welfare
  - 48.101 General Psychology
  - 48.210 Life-Span Psychology
- One additional three credit course in psychology.
- 50.101 General Biology I

## Criminal Justice (B.A.)

In addition to 54 semester hours of general education requirements, a total of 42 semester hours is required for a major in criminal justice. An additional 32 semester hours in electives completes the 128-hour university degree requirement. The Sociology Internship Program (45.496) accounts for 6 to 15 semester hours. Internships provide first-hand experience in the field and can be at local, state or federal agencies or private institutions. Required courses are:

### Core courses

- 45.211 Principles of Sociology
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.462 Sociological Theory

### Criminal Justice sequence

- 45.244 Introduction to Criminal Justice (prerequisite to all other courses in the sequence)
- 45.242 Juvenile Delinquency
- 45.341 Criminology
- 45.342 Penology
- 45.343 Victimology
- 45.495 Criminal Justice Internship Program

Choose three departmental courses (Code 45) excluding courses listed above and excluding 45.297, 45.497 and 45.498, but including at least one course at or above the 300 level.

## Minor in Sociology

A student is required to take 18 credit hours from the Department of Sociology, Social Work and Criminal Justice for the minor. All students are required to take one course (45.211 Principles of Sociology) and then select five additional courses, according to areas of interest of the student and with the advise and consent of his or her adviser.

### Required:

- 45.211 Principles of Sociology

Choose five from the following list of courses:

- 45.213 Contemporary Social Problems
- 45.215 Racial and Ethnic Minority Groups
- 45.217 Sociology of Sport

45.231 Marriage and Family  
45.242 Juvenile Delinquency  
45.244 Introduction to Criminal Justice  
45.255 Research Methods of Social Inquiry  
45.260 Basic Social Statistics  
45.316 Urban Sociology  
45.318 Social Stratification  
45.319 Religion and Society  
45.320 Sociology of Women  
45.341 Criminology  
45.342 Penology  
45.343 Victimology  
45.345 Medical Sociology  
45.375 Science and Society  
45.400 Sociology of Mass Communication  
45.441 Social Indicators  
45.443 Sociology of Deviant Behavior  
45.457 Sociology of Community  
45.461 Social Problems in Rural/Urban Communities  
45.462 Sociological Theory  
45.465 Computer Applications in the Social Sciences  
45.467 Population Problems  
45.468 Social Service Planning  
45.470 Senior Seminar  
45.474 Contemporary Environmental Issues  
45.477 Community Land Use Planning  
45.478 Sociology of Work  
45.490 Sociology of Aging

## Minor in Women's Studies

Courses vary by semester and may be offered in the Departments of Anthropology; Biological and Allied Health Sciences; Communication Studies and Theatre Arts; English; Health and Physical Education; History; Philosophy; Political Science; Psychology; Sociology, Social Welfare and Criminal Justice and those identified as interdisciplinary studies.

Courses that count toward the Women's Studies Minor include:

09.230 Human Sexuality  
20.287 Black Women Writers  
20.288 Feminist Reading of Culture  
20.388 Gender, Race and Class  
25.494 Gender Issues in Communication  
25.492 Feminist Discourse  
28.308 Feminist Philosophy  
42.329 The American Woman  
42.469 Women and Gender in European Intellectual History I  
44.377 Feminist Political Theory  
44.470 Women and Gender in European Intellectual History II  
45.231 Marriage and Family  
45.320 Sociology of Women  
48.350 Psychology of Sex and Gender

# Course Descriptions

## DVS (01) Developmental Instruction

Administered by Department of Developmental Instruction

01.011 Reading I (Summer) (3) - Designed to improve a student's reading ability to a level where he/she can compete at the next level. Instruction given in a laboratory and lecture format. Weekly contacts provide individualized prescriptions. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.025 Reading II (3) - Course presents major components of the reading process and emphasizes basic reading skills. A prerequisite for College Reading and Study Skills for students scoring below the established cutoffs on the Nelson Denny Reading Test. Three semester hours towards full-load status; grade counted in GPA. Does not apply toward graduation.

01.041 Writing I (Summer) (3) - Fundamentals of standard written English for students who test extremely low on SAT-V and whose writing samples confirm need. Emphasis on language activities such as conferencing, revising and editing of papers and reading response journals to improve basic skills in context and reduce anxiety about writing. Numerous and varied short writing assignments. Three semester hours towards full-load status; grade counted in the GPA. Does not apply toward graduation.

01.060 Writing II (3) - Required of students whose SAT-V scores fall below a standard set by the university and whose writing samples confirm need. Students refine basic writing skills in context of varied writing assignments that address given rhetorical situations. Assignments call for specific evidence and responsible generalization from that evidence. Classwork may include conferencing, collaborative work, student presentations, reading and discussion as well as writing. Three semester hours towards full-load status; grade counted in GPA. Does not apply toward graduation.

01.071 Pre Algebra (Summer) (3) - Geared for students with inadequate arithmetic skills. Study skill techniques and problem-solving strategies explored. Emphasizes basic computer literacy and uses computer-assisted instruction. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.080 Introductory Algebra (3) - Recommended for students with minimal algebraic skills as evidenced by student preparation and results obtained in diagnostic tests. A program designed for each student may include operations of rational numbers, ratio, proportion, percent, geometric concepts, basic algebraic concepts and skills. Concepts may include beginning linear equations.

Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.090 Intermediate Algebra (3) - Emphasizes intermediate algebraic skills necessary if success is to be obtained in College Algebra. Topics include linear equations and functions, exponents and polynomials, factoring, rational expressions and quadratic equations. Provides concepts and skills necessary for college-level math courses that build on a limited algebraic background. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.095 Introductory Science (Summer) (3) - Acquaints the student with scientific terminology and methodology; familiarizes the student with the study skills unique to the mastery of science; prepares the student for subsequent courses in science; and makes the student more comfortable with the nature and characteristics of science. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.099 Intensive English Seminar (Summer) (6) - Designed for entering international students who score at least at the ACTFL level I+ on a departmentally-administered oral placement test, but who have low TOEFL scores or who wish to improve English skills preparatory to enrollment in other classes. Provides 90 hours of conversation and acculturation in the company of native English speakers, together with some practice in writing and grammar. Credit does not apply toward graduation.

01.100 College Study Skills (1) - Designed to provide, formulate and apply the methods and models of learning strategies. Principle focus on content area reading and study skills. Outside readings and discussion focus on the nature of learning and the individual's responsibility to learning. Product and process discussed and compared to various approaches to learning. Applies toward graduation. Usually restricted to the summer freshmen program or offered upon special request.

01.120 College Reading and Study Skills (3) - Develops the complex reading and study skills essential for college learning. Focuses on content area reading and study strategies, reading flexibility and critical reading skills. Outside readings focus on the nature of learning and the individual's responsibility to learning. Students may be required to use the reading lab for computerized vocabulary lessons and speed reading exercises. Applies toward graduation.

## HPE (05) Health, Physical Education and Athletics

Administered by Department of Health, Physical Education

and Athletics.

- 05.112 Varsity Athletics (1) - Open to any student who is a member in good standing of a Bloomsburg University athletic team. Course is graded pass/fail.
- 05.113 Varsity Athletics II (1) - Open to any student who is a member in good standing of a Bloomsburg University athletic team. Course is graded pass/fail.
- 05.149 Aquatics (1) - Provides an opportunity for non-swimmers to make a proper physical and mental adjustment to water. Introduces basic skills as provided by the American Red Cross with specific emphasis on becoming safe in, on or about a body of water.
- 05.150 Aquatics (1) - Contains same content as 05.149 but adapted for beginning skills.
- 05.155 Swimnastics (1) - Assists students to attain and maintain physical fitness through water activities.
- 05.200 CPR and Safety (1) - Designed for completion of Red Cross CPR certification and to develop a safety awareness expertise for accident prevention. Fee may be required.
- 05.220 International Folk Dance (1) - Teaches the basic elements of folk dancing that can be combined to form limitless numbers of dances. A wide variety of dances will be taught incorporating these elements.
- 05.214 Fencing (1) - Lecture aspect covers a study of the history of fencing, the weapons and equipment involved, rules of the sport and safety procedures. Emphasis on learning and practicing the skills (encompassing practice bouts) and a tournament.
- 05.217 Bicycling (1) - An introductory course for novice cyclists who have access to a variable speed bicycle. Local touring is part of the course. Must provide bicycle and helmet.
- 05.219 Tennis (1) - A beginning course that teaches basic stroke execution, strategy and court etiquette.
- 05.220 International Folk Dance (1) Teaches the basic elements of folk dancing that can be combined to form limitless numbers of dances. A wide variety of dances will be taught incorporating these elements.
- 05.221 Jazz Dance (1) - Develops fundamentals of jazz dance.
- 05.222 Creative Dance (1) - Develops the individual's capability for communication of thoughts, feelings and ideas through the medium of dance. Acquaints students with the basic elements of dance and guides them toward technique mastery with emphasis on expressive or creative movement.
- 05.224 Fitness Dance (1) - Attempts to provide a method of cardiovascular endurance in a particular interest area.
- 05.225 Beginning Ballet (1) - Develops the fundamentals of beginning ballet dancing. Elements, skills and the language of ballet will be introduced. This history and popularity of this art form along with the personal and creative benefits from ballet are included.
- 05.226 Jogging/Walking (1) - Explores the relationship of physical activity (jogging/walking) to the components of wellness and healthy lifestyles. Also provides sound exercise principles for successful, personalized fitness programs.
- 05.228 Gymnastics (1) - A co-ed introductory course that works primarily on floor exercise and includes instruction on a variety of apparatus including: the balance beam, pommel horse, parallel bars.
- 05.229 Water Polo (1) - Develops skills, understanding and appreciation of water polo as recreational aquatic sport. Provides activity and instruction in individual fundamentals and their incorporation into a team concept. Recommended for students with basic swimming ability.
- 05.230 Weight Training and Fitness (1) - Develops knowledge, skill and appreciation of weight training and conditioning programs.
- 05.231 Archery (1) - Course develops knowledge of, skill in and appreciation of target archery as a recreational pursuit.
- 05.232 Bowling (1) - Students learn the mechanics of bowling in this beginner's course that meets off-campus. Students begin with appropriate ball selection, learn acceptable styles, practice proper etiquette and bowl under the instructor's close supervision. Fee required.
- 05.233 Badminton (1) - Deals with the strokes, strategies and game of badminton from a beginner's viewpoint. Also valuable to the intermediate player.
- 05.234 Golf (1) - An introductory course that develops basic skills. Rules, techniques, etiquette and an emphasis on skill practice are stressed. Fee may be required.
- 05.235 Riflery (1) - Develops the skills, safety, understanding and appreciation of riflery as a recreational pursuit.
- 05.236 Volleyball (1) - Develops the skills, understanding and appreciation of volleyball as a recreational activity as well as a vigorous, competitive sport.
- 05.238 Racquetball-Handball (1) - An introductory course that teaches history, etiquette, strokes, serves and strategy in singles and doubles.
- 05.239 Square Dancing (1) - Develops skill in square and folk dances. Covers the sociological, physiological and psychological values of square dancing. Students acquire a repertoire of western square dance moves and dance techniques.
- 05.240 Slimnastics and Fitness (1) - Develops an awareness and understanding of physical self and capabilities; teaches students how to improve their physical condition. Includes exercise and body mechanics.
- 05.241 Judo Self-Defense (1) - Provides a better understanding of the sport and a competency of judo and self-defense techniques. Should be used as an elective within the physical education service program requirements.
- 05.243 Backpacking (1) - Reviews backpacking equipment and first aid procedures; includes how to select trails, menus and cooking methods; teaches safety procedures; discusses how to adjust to the seasons and how to pro-

tect the environment.

- 05.244 Orienteering (1) - Practical application of the knowledge and skills needed to satisfactorily follow a designated course through the wilderness with use of a watch, a compass and a map.
- 05.245 Canoeing (1) - Offers instruction in the basics of canoeing, including skills that can be used recreationally in one's lifetime. Lake and river canoeing will be taught and experienced.
- 05.247 Rock Climbing (1) - Provides rock climbing experiences for the beginning rock climbing enthusiast. Introduces basic knowledge, skills and practical application of climbing. Serves as a foundation for further experiences in this area of recreation.
- 05.248 Basic Sailing (I) - A beginning course that includes terminology, maneuvering under normal and severe weather conditions, seamanship, boating and safety. Swimming ability required.
- 05.250 Lifeguarding (2) - Provides an opportunity to attain an American Red Cross Lifeguarding Certificate. CPR is taught as part of this course.
- 05.251 Techniques of Coaching and Officiating Baseball (3) - Classroom-laboratory provides an overview of baseball administration organization, fundamental skills, drills and techniques of umpiring.
- 05.252 Techniques of Coaching and Officiating Basketball (3) - Instruction in techniques of coaching, player-coach relationship, team strategy, program organization and officiating.
- 05.253 Techniques of Coaching and Officiating Football (3) - Instruction in techniques of coaching, player-coach relationship, program organization and administration and officiating.
- 05.254 Techniques of Coaching and Officiating Field Hockey (3) - Instruction in techniques of coaching and officiating all the phases of field hockey.
- 05.256 Techniques of Coaching and Officiating Cross Country, Track and Field (3) - Analysis of technique and the development of personal skills. Knowledge provided for development of a track program. Discusses rules, starting, officiating, scoring and facility use.
- 05.257 Techniques of Coaching and Officiating Wrestling (3) - Gives prospective coaches an insight into problems and situations that may be encountered; prepares the individual to teach as well as coach wrestling.
- 05.260 Techniques of Coaching and Officiating Swimming (3) - Presents techniques of coaching, swimming, diving; covers rule interpretations and duties of officials.
- 05.265 Basketball (I) - Provides activity and instruction in the development of individual offensive and defensive fundamentals and their incorporation into a team concept. Reviews basic strategy and current trends at all competition levels.
- 05.270 Exercise and You (2) - Studies appropriate physiological functions, exercise physiology, mechanical implications and fitness measurement. Reviews procedures and practical application through programmed exercise. Successful completion of course fulfills two credits of physical education requirement. (3 contact hours).
- 05.271 Intermediate Archery (1) - Provides the opportunity for the student to develop shooting skills.
- 05.272 Intermediate Bowling (1) - Attempts to develop advanced skill and knowledge of bowling. Fee required.
- 05.273 Intermediate Golf (I) - Provides instruction in the techniques and strategy involved in improving the individual skills of the student. Fee may be required.
- 05.274 Intermediate Tennis (1) - Focuses on improving tennis skills.
- 05.275 Intermediate Volleyball (I) - Studies the development and history of volleyball. Attempts to improve fundamental skills, team play and strategy through participation.
- 05.276 Intermediate Judo (I) - Provides an opportunity to develop higher levels of skill competencies in judo.
- 05.277 Advanced Sailing (1) - Intended for students who have sailing experience. Includes maneuvering, race tactics, sail tune, severe weather conditions, docking and anchoring. Prerequisites: Sailing and swimming ability required.
- 05.290 Special Topics (1-3) - Topics announced in the scheduling bulletin prior to each semester.
- 05.298 Fitness and Wellness (3) - Provides learners with the tools for lifelong healthful living. Personal health profiles, mental health, personal fitness programs, stress management, nutritional and environmental health topics are explored. Successful completion of course fulfills one credit of the physical education requirement.
- 05.305 Aquatic Fitness Programming (2) - Develops fitness management leadership skills in an aquatic setting; covers physiological principles of exercise applied to swimming and other water activities. No prior swimming experience necessary.
- 05.306 Psychology of Sport (3) - Aims to familiarize the student with psychological components of human performance related to sport and exercise. Focuses on sport participation and includes psychological assessment, intervention techniques and a brief introduction to the predominant research methods used in sport psychology. Course has particular value to coaches, teachers, psychologists and exercise specialists and other sport-affiliated professions.
- 05.308 Exercise and Mental Health (3) - Provides a strong base of knowledge of theory, research and practice in exercise and mental health. Also provides prospective fitness and exercise professionals (exercise science) with essential information and suggestions of practical value in leadership roles in exercise, wellness, health promotion, corporate fitness, cardiac rehabilitation and other areas.
- 05.309 Decisions for Healthy Behavior (3) - Focuses on personal health issues, the consequences of decisions made

about health choices and the societal implications, locally and globally, of those decisions. Approved for general education requirement.

- 05.311 Methods, Materials in Elementary School Physical Education (3) - Provides principles and procedures to meet the needs and interests of elementary-age children in the area of physical education.
- 05.320 Health and Safety in the Elementary School (3) - Covers health knowledge, training and health appraisal techniques for teaching elementary school health; the elementary school health program; and safety education in the elementary school.
- 05.321 First Aid Safety (3) - Provides training in first aid and safety. Red Cross standard, advanced and cardiopulmonary resuscitation certifications may be earned. One credit may be applied to the Fitness and Recreational Skills area.
- 05.330 Introduction to Coaching (3) - An overview of basic theories and coaching applications in sport philosophy, sport psychology, sport pedagogy, first aid and sport management resulting in American Coaching Effectiveness Program Certificate.
- 05.331 Recreation Education (3) - Presents discussion of and practice in, recreation activities used in school and playground situations. Emphasizes techniques of leadership, recreation planning, legal liability and trends in recreation programming.
- 05.333 School Camping and Outdoor Education (3) - Acquaints students with the scope of organized camping and the acquisition of and practices in the basic skills required of individuals involved in camping and outdoor education training. Requires field experiences.
- 05.334 Women in Sport (3) - Surveys aspects of the historical and contemporary role of women in sport. Encourages an awareness in students regarding the differences between sport for men and women in various contexts, including social, psychological and biophysical. by examining the past and current practices and cultural norms in light of evolving research findings, students are expected to increase their understanding of issues germane to sport. Approved as a cultural diversity course.
- 05.370 Measurement and Evaluation in Human Performance (3) - Acquaints future exercise science majors with techniques of evaluating and measuring the progress of physical fitness and exercise testing components. Includes descriptive statistics, knowledge tests, grading, physical performance tests and tests of sport skills. Prerequisite: 53.114 College Algebra or consent of the instructor.
- 05.397 Adult Health Development Program (3) - An intergenerational and multicultural health program that trains students to work one-on-one with older adults to promote health and well-being.
- 05.401 Methods in Fitness Dance (3) - Introduces exercise science majors to the teaching principles and current techniques involved in aerobic-dance and step dancing. Includes methods of designing physical and motivation-

al programs to teach in corporate or similar fitness areas.

- 05.414 Exercise Prescription and Programming for Special Populations (3) - Provides students with a basic overview of theoretical, scientific and applied perspectives of exercise prescriptions of special populations. Practical experience, physical fitness programs and modified fitness programs will be introduced and incorporated in working with special populations. Prerequisites: 05.278, 05.476.
- 05.430 Current Issues in Health Promotion (3) - Assesses major problems which concern communities today: drugs, sexually transmitted diseases, pollution, alcohol and suicide.
- 05.450 ECG Interpretation/Exercise Testing (3) - Provides students with both theoretical and practical knowledge of exercise testing in a research/clinical environment. Students gain knowledge in basic electrocardiogram interpretation for the normal and the diseased heart. A survey of cardiorespiratory structure and function will be provided. Prerequisite: 50.174 or equivalent or permission of the instructor.
- 05.451 Kinesiology: The Analysis of Human Motion (3) - Introduces students to the fundamentals of human movement. After a survey of the musculoskeletal system, students will engage in a detailed analysis of the primary articulations. The fundamentals of biomechanics will be examined to provide students with an appreciation of movement. Prerequisites: 50.173 and 50.174.
- 05.452 Cardiac Rehabilitation (3) - Provides student with both a theoretical and practical knowledge of cardiac rehabilitation. Students study the etiology, epidemiology, patient differences, logistical and administrative considerations, treatments, as well as the education of the cardiac patient.
- 05.476 Exercise Physiology (4) - Study of the physiological functions of the organ systems during exercise stress. Development of a working knowledge of assessments, motor characteristics and physical performance. Prerequisites: 50.173 and 50.178.
- 05.477 Methods and Materials in Adult Physical Education (3) - Emphasizes the academic and technical knowledge necessary to conduct health and fitness programs in public and private agencies. Students are prepared to assume leadership and management positions within the health and fitness industries. Prerequisite: 05.476.
- 05.498 Internship in Exercise Science (6-15) - Provides the student with a practical on-site work experience in which technical skills and abilities are applied. Site is selected by the student with the approval of the major director. Required experience is designed to be the culminating experience of undergraduate course work and facilitates the transition from the role of student to employee. Prerequisites: 50.173, 50.174, 05.476, 05.477.
- 05.500 Instrumentation and Laboratory Techniques (3) - Provides experiences in the use of conventional technology and procedures in the measurement and assessment of physiological functioning and the maintenance

and calibration of such equipment.

05.510 Research Methods in Exercise Science (3) - Provides a complete overview of the research process employed in exercise science. Specific emphasis is given to conceptualization of the research problem, hypothesis development, literature review and basic statistical procedures. Alternative research paradigms and methodologies (qualitative, survey) are also discussed.

05.511 ECG Interpretation and Exercise Testing (3) - Includes basic ECG theory and interpretation as well as the application of applied physiology to exercise testing. Laboratory experience includes the administration/interpretation of the electrocardiogram at rest and exercise.

05.512 Current Research in Exercise Science (3) - Sharpens students' critical thinking and writing skills while interpreting and analyzing recent research in exercise science. Students critically analyze the most recent research in the area of exercise science and its subdisciplines, including exercise physiology, epidemiology and biochemistry.

05.551 Mechanics of Human Movement (3) - A quantitative approach to movement analysis. The mechanical principles and laws that govern motion will be reviewed, studied and applied to the human body as it engages in exercise, sport performance and daily living tasks. Prerequisite: 05.451.

05.553 Exercise in Chronic Disease Management (3) Examines the use of exercise as a diagnostic, evaluative and rehabilitative tool for individuals with chronic diseases or disabilities. The underlying physiologic causes of various diseases and the identification of clinical symptoms will be examined, as well as the utility of exercise training to monitor and evaluate clinical progress. Prerequisites: 05.575, 05.576 or permission of the instructor.

05.555 Physiology of Training (3) -Examines the physiologic adaptations associated with increased maximal oxygen consumption ( $\dot{V}O_2$  max) and submaximal, prolonged exercise performance. Emphasis will be placed on an examination of potential mechanisms associated with exercise-induced adaptations. The physiology of strength development and associated mechanism will also be explored. Prerequisites: 05.575, 05.576 or permission of the instructor.

05.557 Ethical and Legal Issues in Conducting Research (3) - Examines ethical and legal issues that may emerge during the process of conducting research in Exercise Science. A historical view of the development of ethical codes will be studied which relate to the formation, conduct, analysis and presentation of research problems. Prerequisite: 05.510 or permission of the instructor.

05.559 Scientific Evaluation of the Elite Athlete (3) - This course is designed to provide students with both a theoretical and practical knowledge of the evaluation procedures used to profile the elite athlete. Students will have the opportunity to visit the various laboratories located within an Olympic Training Center and discuss specific testing and training procedures with the Center's professionals. Prerequisites: 50.173, 50.174, 05.510,

05.500, 05.576, 05.575 or permission of the instructor.

05.561 Exercise Science and Aging (3) - This course is designed to provide students with both a theoretical and practical knowledge of the relationship between exercise science and the aging process. Following classroom instruction students will visit selected senior citizen facilities and have an opportunity to work directly with older adults. Prerequisite 05.575, 05.576 or permission of instructor.

05.575 Exercise Physiology I (3) - Provides a continuation of basic and advanced exercise physiology principles. Focuses on energy metabolism, the structure and function of skeletal muscles and cardiovascular dynamics during exercise.

Intended to develop student's knowledge of the physiology of human performance, the effects of ergogenic aids, aging, and the environment on physical performance.

05.576 Exercise Physiology II (4) - Concentrates on the physiological responses and adaptations that result during and after exercise. This course addresses the acute and chronic adaptations following exercise on the body system. Laboratory experience mirrors lecture material.

05.577 Worksite Health and Fitness Programming (3) - Detailed study of the information and expertise pertaining to health fitness assessment and exercise programming, in accordance with requirements for nationally accredited certification examinations (e.g., American College of Sports Medicine Health Fitness Instructor certification).

05.595 Practicum (3)

## HON (08) Honors Courses

Administered by Honors Advisory Committee, Academic Affairs

08.101 Honors Humanities I (3) - Allows freshmen and sophomore level students to focus on a specific topic or related topics in the humanities for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for humanities.

08.110 Honors Math and Science I (3-4) - Allows students to focus on a specific topic or related topics in math or science for in-depth study and analysis, including laboratory experience. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for math/natural science.

08.130 Honors Social Science I (3) - Allows students to focus on a specific topic or related topics in the social sciences for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in

written and oral form. Fulfills general education requirement for social science science and approved as a diversity course.

08.201 Honors Humanities II (3) - Allows freshmen and sophomore level students to focus on a specific topic or related topics in the humanities for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for humanities.

08.210 Honors Math and Science II (3-4) - Allows students to focus on a specific topic or related topics in math or science for in-depth study and analysis, including laboratory experience. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for math/natural science.

08.230 Honors Social Science II (3) - Allows students to focus on a specific topic or related topics in the social sciences for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for social science.

08.300 Introduction to Honors Research (1) - Serves as an introduction to research and includes guest lectures from library staff, university faculty across the disciplines and from other university personnel concerned with undergraduate research. Required of all honors students before beginning honors research. The student chooses an honors mentor and begins planning research. In the pass/fail course, the student must produce a proposal for honors thesis research that meets the approval of the Honors Advisory Committee.

08.301 Honors Seminar on Values (3) - Features study of a selected topic that will change with each offering. Upper division seminar focuses on values and ethical issues and may be taught by professors from any of the colleges or Arts and Sciences divisions. Seminar fulfills the general education requirement for values courses.

08.302 Honors Seminar on Diversity (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or Arts and Sciences divisions. Seminar fulfills the general education requirement for diversity courses.

08.303 Honors Seminar on Quantitative and Analytical Reasoning (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or Arts and Sciences divisions.

08.304 Honors Interdisciplinary Seminar (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or

Arts and Sciences divisions.

## IDS (09) Interdisciplinary Studies

Administered by College of Liberal Arts

09.100 University Seminar (1) - Promotes a successful transition to college life for new freshmen through the presentation of critical information about the university's academic program.

09.111 Introduction to the Peoples of the Third World (3) - Examines the peoples of the Far and Middle East, Africa and Latin America; their art, literature, philosophy, cultural geography and history, sketching their importance in the world.

09.211 History of Natural Scientific Thought (3) - Reviews the historical development of the natural sciences and mathematics, the nature of scientific and mathematical thought and methods, characteristics of these disciplines and their significance to human progress.

09.213 Science, Technology and Human Values (3) - Compares the interaction of science and technology with human values. Studies past, present and future technological developments and their impact on personal and social values.

09.230 Human Sexuality (3) - Presents a two (2) gender perspective of the roles of sexuality in the life of humans. Considered are anthropological, biological, psychological and sociological aspects of sexuality and their relation to popular culture and diversity. Addresses current public health issues, ethics, responsible decision-making and values.

09.231 Technical Writing (3) - Presents the principles of technical writing in the physical, natural and social sciences and in technology and industry. Promotes effectiveness in communicating technical information to specialized and general audiences. Uses seminar approach involving class participation and individualized instruction.

09.311 Seminar in American Studies I (3) - Provides a thorough appreciation of our varied heritage and research materials and resources available for deepening the knowledge of this growing area of inquiry.

09.312 Seminar in American Studies II (3) - continuation of 09.311.

09.487 THIS Internship Experience (9) - Internship provides outstanding students with enriching academic experience as an intern in the executive or legislative branches of state government or with state boards, agencies or commissions.

09.488 THIS Research Project (3) - The student intern completes an individualized directed project involving substantial analysis and research. The project is related to the internship experience.

09.489 THIS Academic Seminar (3) - Student interns participate in a seminar coordinated by the resident director. The seminar is structured to integrate the student's work experience with a rigorous academic component and an exposure to multiple facets of state government.

- 09.491 Honors Independent Study in Humanities I (1-3) - An independent study course in which, under the guidance of a faculty mentor, the student completes the initial project(s) in the first stage of his/her proposed honors work.
- 09.492 Honors Seminar in the Humanities (3) - Allows for continued in-depth study of a particular research project of the student's choice and provides honor students the opportunity to discuss with peers and interested faculty concepts in the humanities related to the project and to the student's major field. Seminars organized around general themes selected by the humanities honors committee and announced in advance.
- 09.493 Honors Independent Study in the Humanities II (1-3) - Independent study in an area previously approved as part of the student's overall honors program.
- 09.495 Honors Seminar in the Natural Sciences and Mathematics (1) - Offers a cross-disciplinary perspective to students in the honors program with emphasis on student presentation and discussion of important topics in a student's area of expertise.
- 09.496 Honors Independent Study in the Social Sciences I (1-3) - Involves the student's selection of an honors adviser and project, initial exploratory reading and a proposal for a major Honors Independent Study Project. Reserved for students who qualify for and wish to pursue an honors course of study in their last two years. Usually taken in the junior year.
- 09.497 Honors Seminar in the Social Sciences (3) - Allows for continued in-depth study of a particular research project and provides honor students the opportunity to discuss with peers and interested faculty concepts in the social sciences which relate to the research project and the student's major field. Focus of the seminar is interdisciplinary.
- 09.498 Honors Independent Study in Social Sciences II (3) - Provides for an on-site work experience and training program designed to give selected interns an opportunity to apply theoretical and descriptive knowledge acquired in multiple humanities disciplines. Requires approval of the internship coordinator and the dean of Arts and Sciences.
- 09.580-589 Special Topics (1-3) - Provides an opportunity for graduate students from any graduate program to expand their knowledge from a previously learned experience or to explore a new learning experience not offered on a regular basis. Each course carries from 1 to 3 semester hours. Prerequisites are determined by the instructor.
- 09.590 Graduate Internship (1-6) - Provides a work-study experience initially administrated by an academic faculty member and a sponsoring employer. Provides the opportunity for an internship experience across disciplines at a graduate level.
- 09.599 Master's Thesis (3-6)

## FRE (10) French

Administered by Department of Languages and Cultures

- 10.100 Foundations of French Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the Francophone world. Language laboratory activities required.
- 10.101 French I (3) - Seeks to develop the four language skills and acquaint students with elements of francophone culture. For students with no more than two years of French. Practice in the language laboratory required.
- 10.102 French II (3) - Continuation of 10.101. Prerequisite: 10.101 or equivalent.
- 10.203 French III (3) - Continuation of development of the four language skills. Emphasis on reading. Study of francophone culture. Practice in the language laboratory. Prerequisite: 10.102 or equivalent. Diversity course.
- 10.204 French IV (Fall) (3) - Continuation of 10.203. Emphasis on culture and oral communication skills. Practice in the language laboratory. Prerequisite: 10.203 or equivalent. Diversity course
- 10.205 Applied Phonetics and Pronunciation (3) - Analyzes French sound system. Drills on pronunciation and intonation. Selections of prose, poetry and songs for imitation. Not offered every semester. Prerequisite: 10.102 or equivalent.
- 10.206 Structure of the French Language (3) - Thorough study of grammar and syntax and use of idioms through applied exercises. Introduction to French morphology. Not offered every semester. Prerequisite: 10.204 or equivalent.
- 10.207 Conversation: French Daily Life and Customs (3) - Prepared and free speaking activities about everyday life and customs in francophone countries. Not offered every semester. Prerequisite: 10.204 or equivalent or concurrently with 10.204 with consent of the chairperson.
- 10.211 Foundations of French Culture and Civilization (Fall) (3) - Reviews major developments of French culture from an historical point of view. Taught in English; knowledge of French unnecessary. Special projects for French majors. Approved as a diversity course.
- 10.212 France Today (3) - Presents major aspects of life in France today. Taught in English; knowledge of French unnecessary. Special projects for French majors. Not offered every semester. Approved as a diversity course.
- 10.281 - 10.289 Special Topics (1-3) - Provides knowledge and training in fields usually not covered in regular courses. Content determined by instructor and varies each time course is offered. Topics may include French for travelers, French gastronomy, Quebec culture. Not offered every semester.
- 10.290 French Studies Abroad (1-6) - Prerequisite: Minimum two semesters of French or equivalent or consent of the chairperson.
- 10.295 Art and Culture of France (3) - Provides a study-tour of France with attention to French art as seen in rela-

tion to its social and cultural environment. Visits to places of artistic and cultural interest in and around Paris and the provinces. Not offered every semester. Prerequisite: Consent of the instructor.

10.309 Commercial French (3) - Acquisition of French business language and terminology in reading, writing and speaking. Includes cultural content of francophone culture. Provides an introduction to business correspondence. Not offered every semester. Prerequisite: 10.204 or equivalent.

10.331 Selected 20th Century Writers (Fall) (3) - Students study French for reading and cultural knowledge; selected modern works. Prerequisite: 10.204 or equivalent.

10.401 Advanced French Language (3) - Presents a thorough review of phonology, morphology, syntax and semantics. Practical application in advanced speaking including activities with development of cultural proficiency. Not offered every semester. Prerequisite: 10.206 or consent of the chairperson.

10.402 Contemporary Issues in Francophone Media (3) - Presents further development of language fluency through discussion of current topics and issues selected from francophone newspapers and magazines. Not offered every semester. Prerequisite: 10.207 or equivalent.

10.409 Commercial French II (3) - Studies French business life aiming at preparing students for internships in business in France, Quebec or a branch of a French company in the U.S. Reviews business correspondence and cultural content. Not offered every semester. Prerequisite: 10.309.

10.422 Masterpieces of French Literature (3) - Studies the most significant writers and playwrights of France. Not offered every semester. Prerequisite: 10.206 or consent of the chairperson.

10.423 Black Francophone Writers and Culture (3) - Presents major aspects of life in Black francophone countries and major writers in those countries. Taught in French. Not offered every semester. Prerequisite: 10.204 or consent of the chairperson.

10.490 Independent Study in French (1-9) - Provides for individual study of a particular aspect of French civilization, language or literature under faculty supervision. Prerequisites: Consent of the instructor and the chairperson.

## GER (11) German

Administered by Department of Languages and Cultures

11.100 Foundations in German Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the German-speaking world. Language laboratory activities required.

11.101 German I (3) - Develops the four language skills and acquaints students with elements of German-speaking

cultures. For students with no more than two years of German. Requires practice in the language laboratory.

11.102 German II (3) - Continuation of 11.101. Reading and writing given additional emphasis. Prerequisite: 11.101 or equivalent.

11.121 German Authors of the 20th Century I (3) - Examines works of major German authors such as Hesse, Brecht, Mann, Kafka, Durrenmatt and Boll. Taught in English; knowledge of German unnecessary. Readings in German and special projects for German majors. Not offered every semester.

11.122 German Authors of the 20th Century II (3) - Continuation of 11.121. Taught in English; knowledge of German unnecessary. Readings in German and special projects for German majors. Not offered every semester.

11.203 German III (3) - Development of the four language skills. Basic grammar reviewed and new grammatical concepts presented. Reading and study of the culture given additional emphasis. Not offered every semester. Prerequisite: 11.102 or equivalent. Diversity course.

11.204 German IV (3) - Continuation of 11.203. Emphasizes culture and communication. Not offered every semester. Prerequisite: 11.203 or equivalent. Diversity course.

11.205 Applied Phonetics and Pronunciation (3) - Analysis of the German sound systems. Drills on pronunciation and intonation. Selections of prose, poetry and songs for imitation. Prerequisite: 11.102 or two years of high school German. Not offered every semester.

11.206 Grammar and Composition (3) - In-depth study of German grammar. Stresses application of grammatical principles in controlled and free written composition. Not offered every semester. Prerequisite: 11.204 or equivalent.

11.207 Conversation: Daily Life and Customs in German-Speaking Countries (3) - Emphasizes student participation in prepared and free-speaking activities on daily life in German-speaking cultures. Outside readings and oral reports assigned. Grammar reviewed when necessary. Not offered every semester. Prerequisite: 11.204 or equivalent or concurrently with 11.204 with consent of the chairperson.

11.211 German Culture and Civilization I (3) - Provides an understanding of the geography, government, customs, education, arts and history of the German-speaking countries, as well as a vivid sense of the current scenes in these countries. Taught in English; knowledge of German not required. Special projects for German majors. Not offered every semester. Approved as a diversity course.

11.212 German Culture and Civilization II (3) - Continuation of 11.211. Taught in English; knowledge of German not required. Not offered every semester. Approved as a diversity course.

11.281-11.289 Special Topics (1-3) - Provides knowledge and training in fields not usually covered in regular courses.

es. Content is determined by instructor and varies. Not offered every semester.

- 11.290 German Studies Abroad (1-6) - Prerequisite: Minimum of two semesters of German or consent of the chairperson.
- 11.309 Commercial German (3) - Acquisition of German commercial language and terminology in reading, writing and speaking. Background of business life in Germany today, in German culture and society. Not offered every semester. Prerequisite: 11.206 or equivalent.
- 11.331 Selected 20th Century Writers (3) - Current German writers for reading and cultural knowledge. Development of the four skills continues. Not offered every semester. Prerequisite: 11.204 or equivalent.
- 11.402 Contemporary Issues in German Media (3) - Further language development, especially of conversation, through discussion of current topics and issues selected from German language newspapers and magazines. Not offered every semester. Prerequisite: 11.207 or equivalent.
- 11.403, 11.503 Workshop (3) - Presents selected materials for practical use. Offered on demand only. Prerequisite: 11.206 or 11.207 or consent of the instructor.
- 11.420 Seminar: Mass Culture and High Culture (3) - Readings and discussion of cultural issues from 1870 to 1933. Background in culture, society and methods of cultural critique. Not offered every semester. Prerequisite: 300 level German or consent of the instructor.
- 11.422 Masterpieces of German Literature (3) - Examines selected masterpieces of German literature from the Middle Ages to the present with excursions in historic and socio-cultural contexts. Prerequisite: 11.206 or permission of the instructor. Not offered every semester.
- 11.490 Independent Study in German (1-9) - Provides for individual study of a particular aspect of German civilization, language or literature under supervision of a faculty member. Prerequisite: Consent of the instructor and the chairperson.

## SPN (12) Spanish

Administered by Departments of Language and Cultures

- 12.100 Foundations in Spanish Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the Spanish-speaking world. Language laboratory activities required.
- 12.101 Spanish I (3) - Develops the four language skills; acquaints students with elements of Hispanic culture. For students with no more than two years of Spanish. Requires practice in language lab.
- 12.102 Spanish II (3) - Continuation of 12.101. Reading and writing given additional emphasis. Prerequisite: 12.101 or equivalent.
- 12.203 Spanish III (3) - Continued development of skills and culture. Increased emphasis on reading and writing.

Diversity course.

- 12.204 Spanish IV (3) - Continuation of 12.203. Prerequisite: 12.203 or equivalent. Diversity course.
- 12.205 Phonetics: Theory and Practice (3) - Seeks to improve student's ability to communicate effectively in spoken Spanish. Provides a detailed study of Spanish sound and intonation patterns through group and individual practice. Attends to individual pronunciation problems. Not offered every semester. Prerequisite: 12.102 or equivalent.
- 12.206 Structure of the Spanish Language (3) - Study of Spanish grammar and syntax through applied exercises and introduction to Spanish morphology. Not offered every semester. Prerequisite: 12.204 or equivalent.
- 12.207 Conversation: Hispanic Daily Life and Customs (3) - Emphasizes student participation in prepared and free-speaking activities about everyday life and customs in Spanish-speaking countries. Not offered every semester. Prerequisite: 12.204 or equivalent or concurrently with 12.204 with consent of the chairperson.
- 12.208 Conversation for Health Professionals (3) - Emphasizes development of speaking and comprehension for communication with Spanish-speaking health care clients. For health services students and other interested persons. Not offered every semester. Prerequisite: 12.204 or equivalent.
- 12.209 Spanish for Social Services (3) - Emphasizes development of speaking and comprehension for communication with Spanish-speaking clients in social services. Prerequisite: 12.102 or permission of the instructor. Diversity course.
- 12.211 Spanish Culture and Civilization (Fall) (3) - Provides an understanding of Spain through geography, education, customs, fine arts and history. Taught in English; knowledge of Spanish not required. Special projects for Spanish majors. Approved as a diversity course.
- 12.212 Spanish-American Culture and Civilization (Spring) (3) - Provides an understanding and appreciation of the present and past life of the Spanish-American Republics. Studies Aztec, Maya and Inca cultures using films and outside readings. Taught in English; knowledge of Spanish language not required. Approved as a diversity course.
- 12.213 U.S. Hispanic Culture and Literature (3) - Studies the literature and cultures of Hispanic groups in the United States. Diversity course.
- 12.214 The Hispanic World Today (3) - Provides an understanding and appreciation of the present Spanish-speaking world, in both Spain, Spanish-American countries and Spanish-speaking groups in the U.S. through geography, history, economics, politics, education, customs and fine arts. Taught in Spanish for Spanish majors and other interested people. Not offered every semester. Prerequisite: 12.204 or consent of instructor.
- 12.250 Spanish for Heritage Speakers I (3) - Studies structure and usage of oral and written speaker (native or near native speakers who have learned the language

- without formal training). Develops linguistic and cultural literacy through actualized authentic materials (both literary and audiovisual). Prerequisite: 12.206.
- 12.281-12.289 Special Topics (1-3) - Provides knowledge and training in fields not usually covered in regular courses. Content is determined by instructor and varies. Topics may include Spanish for Travelers and Women in Spanish Literature. Not offered every semester. Prerequisite: Varies according to the nature of the topic.
- 12.290 Spanish Studies Abroad (1-6) - Prerequisite: Minimum two semesters of Spanish or consent of the chairperson.
- 12.306 Structure and Composition (3) - Review of syntax and structure with application in composition. Not offered every semester. Prerequisite: 12.206 or consent of instructor.
- 12.309 Commercial Spanish (3) - Acquaints students with basic skills in Spanish trade correspondence and commercial reading. Emphasizes vocabulary and commercial idioms. Stresses elementary knowledge of commercial life and methods. For business students and others who desire to enhance their knowledge of Spanish. Not offered every semester. Prerequisite: 12.204 or an equivalent proficiency.
- 12.325 Spanish for Educators (3) - For educators and other students interested in reviewing their proficiency in Spanish. Prerequisite: 12.102 or permission of the instructor.
- 12.331 Selected 20th Century Writers (3) - Reading and discussion of selected modern works. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.350 Spanish for Heritage Speakers II (3) - Studies advanced structure and usage Spanish for heritage speakers (native or near native speakers who have learned the language without formal training). Develops linguistic and cultural literacy through actualized authentic materials (both literary and audiovisual). Prerequisite: 12.250 or permission of the instructor.
- 12.390 Internship in Spanish (3-9) - Students apply the theory learned in the classroom to situations occurring in the workplace. Careful planning with the department's internship coordinator enables the students to schedule these experiences to complement their academic program. Participation in the university's internship adds an important dimension to student's educational experience and future career plans. Prerequisite: 12.204 or permission of the instructor.
- 12.402 Issues in the Hispanic Media (3) - Provides for further development of language fluency through discussion of a variety of topics and current issues in Hispanic media. Practice in advanced conversation emphasized. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.403 Advanced Structure and Composition (3) - Review of syntax and structure with application in composition. Prerequisites: 12.306 or 12.350 or permission of the instructor.
- 12.420 Spanish Literature (3) - Surveys Spanish literature from the earliest lyrics (XI Century) to the present, including historic and socio-cultural contexts. Prerequisites: 12.306 or 12.250 or permission of the instructor.
- 12.421 Hispanic Prose (3) - Reading and discussion of prose works by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.422 Hispanic Theater and Poetry (3) - Reading and discussion of plays and poetry by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.430 Short Story (3) - Acquaints students with the short story as an expression of culture by Spanish, Spanish American, Chicano and Puerto Rican authors and sensitizes students to cultural values in the Hispanic world. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.490 Independent Study in Spanish (1-9) - Provides for individual study of a particular aspect of Hispanic civilization, language or literature under the supervision of a faculty member. Prerequisites: Consent of the instructor and the chairperson. SPN (12) Spanish
- 12.100 Foundations in Spanish Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the Spanish-speaking world. Language laboratory activities required.
- 12.101 Spanish I (3) - Develops the four language skills; acquaints students with elements of Hispanic culture. For students with no more than two years of Spanish. Requires practice in language lab.
- 12.102 Spanish II (3) - Continuation of 12.101. Reading and writing given additional emphasis. Prerequisite: 12.101 or equivalent.
- 12.203 Spanish III (3) - Continued development of skills and culture. Increased emphasis on reading and writing.
- 12.204 Spanish IV (3) - Continuation of 12.203. Prerequisite: 12.203 or equivalent.
- 12.205 Phonetics: Theory and Practice (3) - Seeks to improve student's ability to communicate effectively in spoken Spanish. Provides a detailed study of Spanish sound and intonation patterns through group and individual practice. Attends to individual pronunciation problems. Not offered every semester. Prerequisite: 12.102 or equivalent.
- 12.206 Structure of the Spanish Language (3) - Study of Spanish grammar and syntax through applied exercises and introduction to Spanish morphology. Not offered every semester. Prerequisite: 12.204 or equivalent.
- 12.207 Conversation: Hispanic Daily Life and Customs (3) - Emphasizes student participation in prepared and free-speaking activities about everyday life and customs in

Spanish-speaking countries. Not offered every semester. Prerequisite: 12.204 or equivalent or concurrently with 12.204 with consent of the chairperson.

- 12.208 Conversation for Health Professionals (3) - Emphasizes development of speaking and comprehension for communication with Spanish-speaking health care clients. For health services students and other interested persons. Not offered every semester. Prerequisite: 12.204 or equivalent.
- 12.211 Spanish Culture and Civilization (Fall) (3) - Provides an understanding of Spain through geography, education, customs, fine arts and history. Taught in English; knowledge of Spanish not required. Special projects for Spanish majors. Approved as a diversity course.
- 12.212 Spanish-American Culture and Civilization (Spring) (3) - Provides an understanding and appreciation of the present and past life of the Spanish-American Republics. Studies Aztec, Maya and Inca cultures using films and outside readings. Taught in English; knowledge of Spanish language not required. Approved as a diversity course.
- 12.214 The Hispanic World Today (3) - Provides an understanding and appreciation of the present Spanish-speaking world, in both Spain, Spanish-American countries and Spanish-speaking groups in the U.S. through geography, history, economics, politics, education, customs and fine arts. Taught in Spanish for Spanish majors and other interested people. Not offered every semester. Prerequisite: 12.204 or consent of instructor.
- 12.281-12.289 Special Topics (1-3) - Provides knowledge and training in fields not usually covered in regular courses. Content is determined by instructor and varies. Topics may include Spanish for Travelers and Women in Spanish Literature. Not offered every semester. Prerequisite: Varies according to the nature of the topic.
- 12.290 Spanish Studies Abroad (1-6) - Prerequisite: Minimum two semesters of Spanish or consent of the chairperson.
- 12.306 Structure and Composition (3) - Review of syntax and structure with application in composition. Not offered every semester. Prerequisite: 12.206 or consent of instructor.
- 12.309 Commercial Spanish (3) - Acquaints students with basic skills in Spanish trade correspondence and commercial reading. Emphasizes vocabulary and commercial idioms. Stresses elementary knowledge of commercial life and methods. For business students and others who desire to enhance their knowledge of Spanish. Not offered every semester. Prerequisite: 12.204 or an equivalent proficiency.
- 12.331 Selected 20th Century Writers (3) - Reading and discussion of selected modern works. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.402 Issues in the Hispanic Media (3) - Provides for further development of language fluency through discussion of a variety of topics and current issues in Hispanic media. Practice in advanced conversation emphasized.

Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.

- 12.421 Hispanic Prose (3) - Reading and discussion of prose works by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.422 Hispanic Theater and Poetry (3) - Reading and discussion of plays and poetry by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.430 Short Story (3) - Acquaints students with the short story as an expression of culture by Spanish, Spanish American, Chicano and Puerto Rican authors and sensitizes students to cultural values in the Hispanic world. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.490 Independent Study in Spanish (1-9) - Provides for individual study of a particular aspect of Hispanic civilization, language or literature under the supervision of a faculty member. Prerequisites: Consent of the instructor and the chairperson.

## RUS (13) Russian

Administered by Department of Languages and Cultures

- 13.101 Russian I (Fall) (3) - Develops the four language skills and studies elements of Russian culture. Requires practice in the language laboratory. Also offered in spring on demand.
- 13.102 Russian II (Spring) (3) - Continuation of 13.101. Prerequisite: 13.101 or equivalent.
- 13.103 Russian III (3) - Continued development of four skills. Emphasis on reading and culture. Not offered every semester. Prerequisite: 13.102.
- 13.104 Russian IV (3) - Continuation of 13.103. Not offered every semester. Prerequisite: 13.103.
- 13.290 Independent Study in Russian (1-9) - Individual study of a particular aspect of Russian civilization, language or literature under faculty supervision. Prerequisite: Consent of the instructor and the chairperson.

## ITL (14) Italian

Administered by Department of Languages and Cultures

- 14.101 Italian I (3) - Develops the four language skills and studies the Italian culture. Stresses basic grammar. Not offered every semester.
- 14.102 Italian II (3) - Continuation of 14.101. Emphasizes reading and writing. Not offered every semester.
- 14.203 Italian III (3) - Continuation of the development of the four language skills in Italian, including speaking, listening, reading, and writing, together with the study

of Italian culture. The third course in the sequence of Italian courses continues to develop communicative proficiency in the Italian language at the intermediate level, as well as develop the ability to understand and appreciate Italian-speaking cultures. Taught in Italian. Diversity course.

## CHI (16) Chinese

Administered by Languages and Cultures

- 16.105 Chinese I (3) - Basic elements of Mandarin Chinese, with emphasis on spoken language. Introduces the Chinese culture. Requires practice sessions in language lab.
- 16.106 Chinese II (3) - Continuation of 16.105. Begin study of the Chinese characters. Requires practice sessions in language laboratory. Prerequisite: 16.105 or equivalent.
- 16.211 Foundations of Chinese Civilization (Fall) (3) - Chinese culture and civilization in historical perspective, with emphasis on art and philosophy. Taught in English. Approved as a diversity course.
- 16.212 China Today (Spring) (3) - Chinese culture and civilization today, with focus on art, political philosophy, customs and new directions. Taught in English. Approved as a diversity course.
- 16.350 Foreign Language Teaching Methodology and Research (3) - Covers evolution of methodology, new trends and theories, latest quantitative and qualitative research. Required for foreign language education majors. Not offered every semester.
- 16.400 Study Abroad (1-8) - by consent of the chairperson.

## LAT (18) Latin

Administered by Language and Cultures

- 18.101 Latin I (3) - Develops reading and writing skills; emphasizes correct classical pronunciation. Introduction to Roman culture and civilization. Not offered every semester.
- 18.102 Latin II (3) - Continuation of 18.101. Develops reading and translation skills; teaches classical references through selected readings. Not offered every semester. Prerequisite: 18.101 or equivalent.

## ENG (20) English

Administered by Department of English

When 20.203 is listed as a prerequisite, any 100-level or 200-level literature course may be substituted as the prerequisite.

- 20.101 Composition I (3) - Study and practice of the principles of composition to improve proficiency in writing skills.
- 20.111 Language and Social Interaction (3) - A study of varieties of language, verbal and non-verbal and their communicative and social functions.

20.112 Practical Grammar and Usage (3) - A study of grammatical forms, rules and accepted usage of current written standard English, with practical application to improve diction, sentence structure and style.

20.131 The Bible as Literature (3) - Examination of literary types found in the Old and New Testaments and their profound influence on Western culture.

20.151 Introduction to Literature (3) - Exploration of literature as experience and the techniques by which it communicates in short story, novel, drama and poetry.

20.152 Literature and Society (3) - Readings selected for consideration of purposes, characteristics, issues and values of specific areas (such as business, psychology or science) from a humanistic perspective.

20.153 Folklore (3) - A survey of such traditional forms of oral literature as epic, ballad, folksong, folktale and superstitions examined in terms of origin, transmission and influence on literature.

20.154 Folklore of the American West (3) - A study of folklore genres, including legends, tall tales, ballads and customs of Native Americans, English, French and Spanish of the Trans-Mississippi West.

20.156 Popular Literature (3) - Study of one type of popular literature (such as detective fiction, science fiction, literature of terror or popular drama) and examination of its forms, conventions and ideas. Course content varies with each presentation of the course.

20.200 Writing Proficiency Examination (3) - A series of compositions written under examination conditions on topics provided by the staff. Faculty consultations and a writing laboratory are available for students in the course. Not for English majors. Prerequisite: 20.101.

20.201 Composition II (3) - Intermediate-level study and practice in composition, reinforcing and expanding basic writing skills. Instruction in short and long essays and in research-supported writing. Prerequisite: 20.101 or consent of department chairperson.

20.203 Approaches to Literary Study (3) - An introduction to writing about literature; a consideration of research techniques and types of literary analysis. Satisfies requirement for Composition II. Required for all English majors. Prerequisite: 20.101 or 20.104; open to all students. When 20.203 is listed as a prerequisite, any 100-level or 200-level literature course may be substituted as the prerequisite.

20.204 Introduction to Creative Writing (3) - An introductory course that covers theory and methods of creative writing in prose and poetry forms. Students create and revise their own imaginative works using models by established writers, exercises and peer and instructor comments. Prerequisite: 20.101 or permission of the instructor.

20.205 Honors Composition (3) - Similar to 20.101 but offered only to freshmen exempted from 20.101 on the basis of admission criteria. Study and practice in short and long essays and in research-supported writing. Students who successfully complete 20.104 are exempt from

- a second writing course requirement.
- 20.226 European Literature I (3) - Major Continental literary works in translation from the classical Greek period through the Renaissance, including Biblical backgrounds.
- 20.227 European Literature II (3) - Major Continental literary works in translation from the 17th century to the present.
- 20.236 American Literature I (3) - Survey of American literature from its colonial beginnings through the Civil War.
- 20.237 American Literature II (3) - Survey of American literature from the Civil War through the modern era.
- 20.246 British Literature I (3) - Survey of British literature from Beowulf through Samuel Johnson.
- 20.247 British Literature II (3) - Survey of British literature from the Romantics through the modern era.
- 20.256 Non-Western Literature I (3) - Study of a literature or literatures outside the traditions of European-American cultures. Approved for diversity requirement.
- 20.257 Non-Western Literature II (3) - Study of a literature or literatures outside the traditions of European-American cultures, differing from 20.256 by either the literature(s) or the works studied. Approved for diversity requirement.
- 20.280 Poetry (3) - Exploration of the nature of poetry in terms of its aims, forms and substance.
- 20.287 Black Women Writers (3) - Introduces students to a wide range of black women writers from the United States, Caribbean and Africa. Approved for diversity requirement.
- 20.288 Feminist Reading of Culture (3) - Teaches students to "read" culture through a wide range of "texts," including television and film and to analyze sexism, racism, classism and homophobia. Approved for diversity requirement.
- 20.300 Writing Children's Literature (3) - Approaches to and practice in writing children's books for publication. Consideration of various literary types and techniques with discussion of field research in writing nonfiction, fiction and poetry for children. Prerequisite: 20.384 or 20.385 or consent of the instructor.
- 20.301 Creative Writing: Fiction (3) - Original creative work in fiction; critical analysis by the instructor and the class in group discussion. Prerequisite: permission of the instructor.
- 20.302 Creative Writing: Non-fiction (3) - Advanced study of writing nonfiction prose: form, style, audience, editing, evaluation. Prerequisite: 60 semester hours.
- 20.303 Creative Writing: Poetry (3) - Lecture and discussion concerning the fundamental theory and techniques of poetry writing together with writing and evaluation of poems in a workshop situation. Prerequisite: permission of the instructor.
- 20.306 Theory and Practice of Writing (3) - Introduction to new theories of writing and the teaching of writing including both study of and practice in the methods the theories require. Recommended for secondary education students in English, but open to all students interested in advanced work in writing. Prerequisite: 45 semester hours.
- 20.311 Structure of English (3) - Study of the sound patterns, morphology, word formation processes, semantics and syntax of modern English and of children's acquisition of their first language. Prerequisite: 45 semester hours.
- 20.312 History of the English Language (3) - Survey of the major developments in the English language from its Anglo-Saxon origins to the present. Prerequisite: 60 semester hours or consent of the instructor.
- 20.334, 20.335 Studies in American Literature (3) - Major American writers instrumental in shaping and interpreting the American experience. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.341 Medieval Literature (3) - Major works of the Old and Middle English periods (the former in translation) that relate to a common theme, period or genre (such as drama or metrical romance), generally excluding the works of Chaucer. Prerequisite: 20.203.
- 20.342 The Renaissance (3) - The poetry and nondramatic prose of the 16th and 17th centuries (to 1660), excluding the works of Milton. Prerequisite: 20.203.
- 20.344 Restoration and Eighteenth Century (3) - The prose, poetry and drama of the period from 1660 through the end of the 18th century.
- 20.345 Romantic and Victorian Literature (3) - The poetry and prose of the late 18th and 19th centuries.
- 20.346, 20.347 Studies in British Literature (3) - Major writers instrumental in shaping and interpreting the British experience. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.363 Shakespeare (3) - Study of Shakespeare's plays with emphasis on Shakespeare as poet and playwright and attention to conditions of the Elizabethan theater and history of the Shakespearean text. Prerequisite: 20.203.
- 20.364 Chaucer (3) - Chaucer's major poetry (with practice in speaking and reading Middle English) including consideration of the medieval social and intellectual contexts of his work. Prerequisite: 20.203.
- 20.365 Milton (3) - The poetry and prose of John Milton considered in the contexts of his age, his puritanism and his learning. Prerequisite: 20.203.
- 20.370 The English Novel (3) - History and development of the novel in England from its inception to the end of the 19th century. Prerequisite: 20.203.
- 20.372 Modern Novel (3) - Major modern novels, with emphasis on developments in fictional art. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.374 Short Story (3) - The history, characteristics and techniques of the modern short story. Prerequisite: 20.203.

- 20.375 Renaissance Drama (3) - The plays of Shakespeare's predecessors and contemporaries and those of later Jacobean and Caroline dramatists. Prerequisite: 20.203.
- 20.377 Modern Drama (3) - Major Continental, English and American plays from Ibsen to the present with emphasis on contemporary attitudes, themes and style. Prerequisite: 20.203.
- 20.379 Modern Poetry (3) - A survey of contemporary poetry and poetic movements. Prerequisite: 20.203.
- 20.384 Literature for Children (3) - Studies the development of literature for children, including consideration of criteria for selecting literature for the classroom and library and methods for presenting literary works in an elementary classroom. Prerequisite: 60 semester hours.
- 20.385 Literature for Young Adults (3) - Critical discussion of literature aimed at young adult readers or popular with them, by such writers as S.E. Hinton, Robert Cormier, Judy Blume and Paul Zindel. Consideration of literary works for the secondary classroom with attention to the subject of censorship. Prerequisite: 60 semester hours.
- 20.386, 20.387 Studies in Contemporary Literature (3) - Study of a topic, author or movement significant in post-World War II literatures. Course content will vary. Prerequisite: 20.203.
- 20.388 Gender/Race/Class (3) - Analyzes identity-construction and cultural processes in constructing categories of gender, race and class. Approved for diversity requirement. Prerequisite: 20.203 or permission of instructor.
- 20.391 Literature and Film (3) - Film translations of literary texts, focusing on cinematic techniques, genre constructions, the formal codes and conventions of film, and critical vocabulary.
- 20.411 Modern Linguistic Theory (3) - A survey of modern developments in linguistics, including transformational-generative grammar; applications of theory to patterns of language acquisition; current adaptations of theory for presentation as grammar in schools. Prerequisite: 60 semester hours.
- 20.413 Language in American Society (3) - Review of social, political and philosophical perspectives on the historical development and current status of English and other languages in American society. Prerequisite: 60 semester hours.
- 20.431 American Romanticism (1820-1865) (3) - An advanced course in the significant literary and cultural movements and writers of the period 1820-1865. Special emphasis given to the works of Irving, Cooper, Emerson, Hawthorne, Poe, Thoreau, Melville, Douglass, Whitman and Dickinson. Prerequisite: 45 semester hours, including 20.203.
- 20.432 American Realism (1865-1914) (3) - Study of American literature between the Civil War and 1914. Content varies, but will include Twain, Howells, James, Wharton, Crane and Dreiser. Prerequisite: 45 semester hours, including 20.203.
- 20.433 American Modernism (1914-1945) (3) - Consideration of significant fiction, drama and poetry written between 1914 and 1945, with emphasis on writers and texts reflecting the social, political, intellectual and artistic diversity of the period. Prerequisite: 45 semester hours, including 20.203.
- 20.434 Contemporary American Literature (3) - Consideration of significant fiction, drama and poetry since World War II, with emphasis on writers and texts reflecting the social, political, intellectual and artistic diversity of the period. Prerequisite: 45 semester hours, including 20.203.
- 20.436 African-American Literature (3) - A detailed study of one of the three major areas in African-American literature: the African-American novel, the Harlem Renaissance or African-American Writers. Prerequisite: 45 semester hours, including 20.203.
- 20.480 Special Topics (3) - Study of a topic in literature; topic varies with each presentation of the course.
- 20.481 Special Topics (3) - Study of a topic in literature; topic varies with each presentation of the course.
- 20.488, 20.489 Seminar (3) - An opportunity to explore, at an advanced level, a literary or linguistic subject not offered in regularly scheduled courses. Content determined by the instructor. Prerequisite: 60 semester hours.
- 20.492 Literary Theory and Criticism (3) - Study of traditional literary criticism from Aristotle to the present, as well as of contemporary trends in literary theory, at an advanced level. Prerequisite: 60 semester hours.
- 20.493 Bibliography and Literary Research (3) - Investigation of methods of literary scholarship and study of book history and production with practice in preparing specialized bibliographies and planning scholarly projects. Prerequisite: 60 semester hours.
- 20.494 Rhetoric of Literature (3) - Study of major rhetorical devices, the nature and range of rhetorical designs; identification of these language devices in drama, prose and poetry; and discussion of their effects on the reading audience. Prerequisite: 60 semester hours.
- 20.495 Independent Study in English (3-6) - Prerequisite: 60 semester hours.
- 20.496 Literary Study Abroad (3) - A travel-study course for English majors and non-majors, concentrating on a writer or literary problem in the perspective of the relevant disciplines. Includes meetings with writers and scholars and the use of on-site resources. Area of emphasis determined by the instructor.
- 20.497 English Internship (1-12) - A work-study program. Open to English majors; others by departmental consent. Prerequisite: 60 semester hours completed.

## COM (25) Communication Studies

Administered by Department of Communication Studies and Theatre Arts

25.103 Public Speaking (3) - Introduces students to the es-

entials of effective oral communication and techniques for acquiring it and provides practical experience where in these principles and techniques may be applied.

- 25.104 Interpersonal Communication (3) - Introduces students to the process of interpersonal communication. Students explore the role of conversations and relationships to enhance their participating in daily interactions and their critical awareness of the process.
- 25.108 Forensic Practicum(0-1) - Participation in forensics: debate or individual speaking events. Grades are awarded each semester. May be repeated for maximum of 3 semester hours of credit. First semester register for 25.108.01. Second semester register for 25.108.02. Participation for two semesters for one semester hour of credit.
- 25.205 Understanding Social Influence (3) - Highlights major trends in the study and practice of influence-seeking communication from the ancient Greek sophists to the contemporaries and the post modern.
- 25.206 Oral Interpretation of Literature (3) - Provides practice in skills necessary for conveying intellectual and emotional meanings in poetry and prose read to an audience.
- 25.207 Investigating Communication (3) - Introduces students to topics that communication scholars study, research questions that are typically posed, planning and design of studies, various methodologies, analysis of results and how to report these results in a meaningful manner.
- 25.210 Organizational Communication (3) - Explores the theoretical and the practical aspects of how communication patterns develop in organizations and what effect these patterns have on various organizational processes and outcomes.
- 25.215 Communication Theory (3) - Surveys the dominant theories of interpersonal relationship management, both general theories and those specific to particular interests.
- 25.218 Discussion (3) - Presents a survey of and practice in types and patterns of public discussion and study of informal discussion characteristics and application. .
- 25.220 Intercultural Communication (3) - Explores communicating in cultural contexts and general principles for communication across cultures with the goal of becoming competent communicators. Approved for diversity requirement.
- 25.306 Computer Applications for Professional Communicators (3) - Introduces students to how computers are used in the field of communication. Students learn how to design and present effective electronic presentations, the theory and procedures of desktop publishing and how to use the Internet. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.307 Communication for Business Professionals (3) - Studies business and professional communication, salesmanship (selling skills and methods), conference and interviewing. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.309 Gender Issues in Communication (3) - Presents a broad range of theories concerning the nature of differences in communication behavior between the sexes and the presumed origins of such differences. Examines communication theories about relationships between the sexes in families and other intimate associations, in business roles and in society at large. Primary focus is on contemporary U.S. society, but some historical and cross-cultural contrasts will be explored. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.313 Communication and Conflict (3) - Analyzes the role of communication in the generation, process and management of destructive and constructive conflict on interpersonal, small group organizational and societal levels. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.315 Persuasion (3) - Examines the way people use symbols to influence other people. Provides practice in presenting and evaluating persuasive messages. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.321 Argumentation (3) - Examines basic principles of argument and evidence. Provides practice through presentation and refutation of arguments in debates on controversial issues. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.406 Evaluating Communication (3) - Provides an intensive examination of the philosophy, theory and practice of rhetorical criticism - the analysis, interpretation and evaluation of communication designed to influence human thought and/or action. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.407 Interviewing (3) - Students explore the interview as a specific communication event, with its own rules, procedures and strategies. Acquaints students with a variety of interviewing contexts, such as selection, performance appraisal, informational, helping, sales and health care, by blending current theory and research with practical skills and applications. Students prepare and conduct interviews and receive feedback on oral and written performances. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.413 Community Leadership (3) - Identifies the communication skills that leaders need to influence the information environment and the collective action of organizational members. Special attention is given to the flexibility necessary for functional leadership in a diverse society. by developing communication skills, students are empowered to accept leadership positions in personal, business, community, government and media contexts. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.

- 25.417 Evaluating Media Influence (3) - Develops and applies a media perspective for criticism. Examines the ways in which the structural and formatting tendencies of communication technologies privilege different perceptual modes, behaviors and lifestyles. Students explore and examine the ways in which each medium of communication structures and formats experiences and understandings. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.419 Communication in the Family (3) - by promoting awareness of family communication issues and practices and providing training in relationship enhancement, the course offers students the knowledge and skills necessary to build, adjust and maintain more functional family interaction processes. Considers the communication processes within the family as well as the extent to which they influence or are influenced by larger social systems. Special attention given to the diversity of family experience. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.423 Communication Training in Organizations (3) - Advanced presentation skills for students exploring career opportunities as communication trainers in an organization or as independent training consultants. Includes information about such topics as needs assessment and task analysis, theories of adult learning, systems for developing instructional objectives, preparation and presentation of workshop sessions and evaluation of outcomes. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.424 Corporate Communication (3) - Advanced writing skills for students exploring career opportunities as a publicist or corporate writer in an organization or as an independent communication consultant. Includes information about organizational planning, audience analysis, professional guidelines and writing standards, qualitative and quantitative research, design and layout of publications and use of computers in publication and presentation. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.425 Communication in Relationships (3) - Acquaints students with the theories and methods used to examine the processes of communication in interpersonal relationships. Students review general principles of human communication, address communication skills considered important for effective communication in relationships, analyze communication behavior in the formation, maintenance and dissolution of interpersonal relationships, explore interpersonal communication theory in specific settings and discuss several philosophical orientations to interpersonal communication. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.426 Leadership and Team Building (3) - An intensive survey of theory and research pertaining to working in small groups. Includes a focus on practical knowledge required to become a productive participant and leader in small group contexts. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.470 Independent Study (1-3) - Provides for individual work and study in one of the areas of rhetoric and communication. Student finds a faculty sponsor, prepares a written proposal that requires departmental recommendation and the dean's approval, arranged through the chairperson. See section on Independent Study.
- 25.492 / 25.493 / 25.495 Advanced Studies in Communication (3) Investigates significant aspects of communication studies. Topics vary by semester and include non-verbal communication, political communication and cultural foundations of the information society. Consult the schedule booklet or the listed instructor for further information. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.494 Advanced Studies in Communication: Diversity Focus (3) - Investigates significant aspects of communications studies. Topics are approved as diversity courses. Consult the schedule booklet or the listed instructor for further information. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.497 Internship in Communication (3-12) - Integrates classroom experience with practical work experience in industrial, business or government work settings. Students must establish academic integrity of their proposed experience and its relevance to coursework in the major. Contact departmental internship coordinator to obtain detailed information and forms.
- 25.585 Special Topics in Communication (3) - Specialized study by the class. Subjects vary by semester.
- 25.586 Special Topics in Communication (3)
- 25.587 Special Topics in Communication (3)
- 25.590 Master's Research Paper (3)
- 25.597 Internship in Communication - Graduate (3) - Integrates classroom experience with practical work experience in industrial, business or government work setting. Students must achieve academic integrity of their proposed experience and its relevance to course work in the major. Contact departmental internship coordinator to obtain detailed information and forms.

## **THE (26) Theatre Arts**

Administered by Department of Communication Studies and Theatre Arts

- 26.101 Career Seminar: A Theatre Life in Bloom (2) - Presents an introduction to the theater professions and to general theater practice. Individual goal-setting for participation in the major and in the profession. Required for theater majors.
- 26.102 Introduction to Theatre Arts (3) - Presents a survey of the literature, production and criticism of the theater. Required for theater majors.

- 26.108 Theatre Practicum (0-1) - Participation in plays: acting or technical work. Grade awarded each semester. Participation for two semesters for 1 semester hour of credit. May be repeated for maximum of 3 semester hours.
- 26.112 Fundamentals of Acting (3) - Introduces the theories and techniques of acting. Provides for individual and group exercises.
- 26.200 Voice and Movement (3) - Second in a series of courses designed for performance training. Explores the concepts of kinesthetic awareness, proper use of the voice for the state and vocal interpretation of text.
- 26.202 Understanding Plays: Script Analysis (3) - An introduction to the tools and methods used to develop an approach to understanding plays. Provides the basis for theatrical criticism and for an aesthetic appreciation of theater through development of the critical skills of script analysis expressed in both written and oral form.
- 26.209 Theatre Appreciation (3) - Presents a survey of all aspects of theater: acting, criticism, design, directing, history and production.
- 26.211 Theatre Production/Stagecraft (3) - Studies basic stagecraft: scene construction, painting, drafting and crewing of a show. Laboratory work required.
- 26.215 Theatre History I (Spring) (3) - Surveys structures, production practices, plays and the theater's function in societies from ritual beginnings through the 19th century.
- 26.219 Children's Theatre (3) - A survey of history, theory and production of theater for young audiences.
- 26.270 Fundamentals of Theatre Design (3) - An introduction to the elements and design for theatrical production, including scenery, costumes, make-up, lighting and sound. First in a series of courses designed for training in design technology for theater. For theater majors and other interested students.
- 26.277 Costume Construction (3) - Introductory studio course in the tools and techniques of producing costumes for the stage. Provides a basic working knowledge of the construction of costumes. For theater majors and other interested students.
- 26.311 Screen Design (3) - An introduction to basic movements and the methods, approaches, tools, materials and visual concepts of scene design.
- 26.312 Intermediate Acting (3) - Explores the relationship between the personalized actor, his/her ensemble of fellow artists and the script. Prerequisite: 26.112
- 26.314 Theory of Stage Lighting and Design (3) - Provides for intensive study of theory and design of lighting of a production supplemented by applied work on productions. Laboratory hours required.
- 26.321 Theatre and Stage Management (3) - Prepares students for professionalism in production of plays and the management of a theater company.
- 26.325 Theatre History II (3) - Provides an intensive examination of structure, production practices, plays and the theater's function in societies from the Renaissance to the mid 19th century. Required course for theater majors as well as a course for others interested in the art form of the theater and its history. Prerequisite: 26.215.
- 26.340 Scriptwriting (3) - Studies dramatic structure, types and styles of drama. Students are required to write scripts for stage, film, radio or television. Prerequisite: One writing course or consent of the instructor.
- 26.370 Stage Makeup (3) - Studio course covering aspects of stage makeup from basic modeling with paint to creating complex characterizations. Provides a basic working knowledge of the design and application of makeup for the stage. For theater majors and other interested students. Prerequisite: 26.270
- 26.377 Costuming for the Stage (3) - The study and application of costume design for the theater including methods, tools, materials and visual concepts.
- 26.401 Career Seminar: A Life in the Theatre (2) - Preparation for the move from college to the professional theater environment. Portfolio presentation. Evaluation of professional goals to the theater. Required for theater majors. Prerequisite: 26.101, senior standing, permission of the instructor.
- 26.411 Play Directing (3) - An overview of the principles and techniques of directing and the collaborative process with an introduction to script analysis needed for concept development. Prerequisite: One course in theater. Prerequisites: 26.112 or 26.270 and one other design or performance course.
- 26.416 Modern Theatre (3) - Continues the study of theater history from 19th century through the theater of today. Prerequisite: 26.215 or consent of instructor.
- 26.412 Advanced Acting (3) - Character analysis based on scriptwork. Students begin to focus on particular areas of development. Prerequisites 26.112, 26.312
- 26.470 Independent Study (1-3) - Provides for individual work and study in one of the areas of theater. Student finds faculty sponsor and prepares a written proposal, which requires departmental recommendation and dean's approval, arranged through the chairperson. See Independent Study.
- 26.490 Seminar: Theatre (3) - Provides for a concentrated study of an individual artist, a period or a movement in theater. Offered on demand. Prerequisite: 9 semester hours in theater or consent of the instructor.
- 26.491 Seminar in Technical Theatre and Design (3) - Provides opportunities for advanced studies and application of special topics as selected by the instructor. Examples might include advanced studies in lighting, costume or scene design or technical theater management. Prerequisites: 26.270 and one other design or technical course and permission of the instructor.
- 26.492 Seminar in Performance Studies (3) - Provides opportunities for advanced studies and application of special topics as selected by the instructor. Examples might include advanced studies in audition techniques, act-

ing styles or performance theory. Prerequisites: 26.112, 26.312 and permission of the instructor.

## MSC (27) Mass Communications

Administered by Department of Mass Communications

Note: Prerequisites may be waived by an instructor subject to the concurrence of the departmental chairperson.

- 27.110 Mass Communications and the Popular Arts (3) - A comprehensive overview of mass communications and their relative impacts on society and culture. Covers magazines, newspapers, motion pictures, radio, television, public relations, advertising, ethical codes and media regulations.
- 27.190 History of Film (Spring) (3) - An overview of the history and growth of the motion picture. Studies film genres, historical figures, technicians and performers. Students must view approximately 15 films during the course in laboratory showings.
- 27.230 Newswriting (3) - Outlines the "theory" and techniques of news reporting; the historical development of reporting, its practices and principles and the organizational patterns of news stories and gathering of news. An elementary outline of defamation and libel is included. Student should be able to type 30 to 40 words per minute before enrolling in this course.
- 27.241 Mediagraphics (3) - Computer-generated design and layout problems and applications for printed and visual material including newspaper and magazine pages as well as advertising layouts and visual presentations for video and television material.
- 27.251 PR: Theory and Practice (3) - An introduction to the development, principles, theories and practice of public relations as a social and organizational implement. Looks briefly at the communication process, publicity, community relations and public affairs practice.
- 27.261 Principles of Advertising (3) - Introduces students to the basic objectives and procedures of advertising in a modern economy. Examines the variety of components and methods used to achieve specific objectives in advertising campaigns and the type of instruments used for advertising.
- 27.271 Media Operations (3) - Concentrates on the knowledge and physical use of technical requirements that operate the growing range of equipment needed to produce contemporary radio, television and video programs.
- 27.275 Cinema Appreciation (Fall) (3) - Examines film form, theory and criticism to bring about a better understanding and greater appreciation of the motion picture. Enhances the visual appreciation required in modern media. Approximately 15 films viewed.
- 27.297 Mass Communications Practicum (3) - Requires participation in film, television, radio or print productions in any of the sequences offered in the department or other departments on campus having similar needs relevant to mass communications.
- 27.310 Media Law (3) - Surveys legal restraints that influence the nature and content of mass media messages and business practices. Covers historical developments, criminal libel, sedition, defamation, privacy, copyright, obscenity, shield law, freedom of information, free press-free trial, unique broadcast policies, advertising and antitrust problems.
- 27.315 Social Foundations of Mass Communications (3) - An interdisciplinary study of the historical, philosophical, social, economic and legal foundations of American mass media as a base for study of contemporary mass media. Examines media from the perspective of journalists, owners, audience and government.
- 27.334 Editing (3) - Designed to improve writing for newspapers, magazines and brochures. Indicates particular types of styles most used; emphasizes good, tight copy in news stories; offers practice in headline writing and some elementary layout and design including photo editing. Suggests some defenses to possible defamation and libel problems for copy editors. Prerequisite: 27.230.
- 27.340 Feature Writing (3) - Outlines basic requirements for feature-type articles for newspapers and magazines. Studies various techniques used to gather information and to develop a range of feature articles. Includes practical work as well as the study and discussion of published articles and marketing strategies. Prerequisite: 27.230.
- 27.352 Publicity and Public Relations (3) - Comprehensive study of various publicity techniques used in public relations efforts of business, government and nonprofit organizations. Students prepare press releases, public service announcements, speeches, slide programs or other appropriate communication vehicles. Prerequisite: 27.251.
- 27.360 Mass Media Processes and Effects (3) Locates specific issues in mass media exposure, identifying various ways in which individuals and the whole body of society depend on information provided by the mass media. Prerequisite: junior standing.
- 27.366 Design in Advertising (3) - Principles of advertising layout and design in print and broadcasting. Includes hands-on experience in layout, typography and paste-up in addition to theory. Prerequisite: 27.261.
- 27.367 Television Acting and Directing (3) - Provides instruction in acting and directing for television. Includes laboratory hours. Prerequisite: 27.271.
- 27.371 Broadcast Journalism (3) - Studies technical elements of broadcast writing, script formats and nondramatic material; provides opportunities to study, write and announce news, commercials and other broadcast material. Prerequisite: 27.271 and 27.230.
- 27.375 Broadcast Programming and Management (3) - Studies television and radio management and programming; examines each medium as a business and the elements of success or failure. Studies some basic economics of media and methods of handling this material as well as codes, laws and community interests. Prerequisite: Junior standing.

27.390 Film and Video Production (3) - Reviews the basic processes of filmmaking in an introductory but comprehensive manner. Concentrates on making short silent films and requires laboratory hours and field work by arrangement. Students provide their own film stock for shooting and pay film processing costs. Prerequisite: 27.271.

27.420 Audience Analysis (3) - Explores the theoretical distinction between the social world of actual audiences and the discursive constructs of mass media audiences. Charts the development of an ethnographic understanding of mass media audiences that focuses on the diverse, the particular and unpredictable in everyday life. Stresses design and construction of various research methods on mass media audiences. Prerequisites: junior standing.

27.435 Journalism Seminar: Special Topics (3) - Studies a variety of ethical and practical problems in journalism. Topics may vary each semester. May be repeated with different topics to a maximum of three seminars with approvals of adviser and chairperson. Prerequisite: 27.230.

27.440 Public Affairs Reporting (4) - An advanced reporting course on the role of public affairs in news reporting in mass media. Concentrates on a number of governmental "beats" most susceptible to news generation. Students learn basic abilities consistent with entry-level professional reporting requirements in public affairs coverage, including courts, police and government. Prerequisite: 27.340.

27.446 Magazine Editing and Production (4) - Acquaints students with principles and techniques of magazine production including manuscript selection and editing, advertising, design, production, circulation, promotion and various business operations. Study of the nature of magazines as part of a mass communications system. Each semester students produce a community/regional consumer magazine. Prerequisites: 27.334, 27.340 or consent of the instructor.

27.455 Public Relations Cases and Problems (3) - A study of the use of publicity as a particular element of public relations. Examines specific publicity cases and requires practical hands-on production of written material. Prerequisite: 27.352.

27.466 Advertising Media and Campaigns (3) - Study of the use of advertising media, methods of selection and the skills and background required for media buying and traffic planning. Basic principles and applications of advertising research and campaign planning, preparation and presentation are taught in a problem-solving format. Prerequisite: 27.366.

27.478 Independent Study (1-3) - Provides for individual work and study in an area of mass communications concentration. Students find a faculty sponsor/adviser and prepare a written proposal, which must have departmental approval and approval of the dean, College of Arts and Sciences.

27.480 Telecommunications Production Workshop: Special Topics (3) - A practical workshop program in which tele-

communications majors undertake specific instruction on the technical aspects of their major. Topics may change from semester to semester and students may be required to work on specific projects, such as telethons or television news, as part of their workshop programs. Workshops may be repeated provided topics change. Instructor's and department chairperson's approvals required.

27.482 Mass Communications Seminar (3) - A seminar program that studies ethical and social problems resulting from the pervasiveness of new technologies. Topics may change from semester to semester. Students may repeat seminars, subject to a change in topic and with the approvals of the instructor and department chairperson.

27.485 RTF Authorship Theory and Practice (3) - A study of the construction of documentary and dramatic material in terms of telecommunications/film semiotics with an overall survey of production and business problems. A project course designed primarily for film, television and radio majors moving into mass communications production seminars. Prerequisite: 27.271.

27.497 Mass Communications Internship (3-9) - Open to junior and senior majors with a GPA of 2.75 in the major, although consideration will be given for other practical experience students may have. May include on-campus or off-campus study of a particular project arranged by the student, adviser and department chairperson. Interns are expected to have completed several of their basic specialist courses prior to applying for internships. Projects must be submitted in writing at least a month before the project is expected to begin and must be approved by the student's adviser and department chairperson. Course may be repeated within catalog regulations. Internships will become a compulsory part of the mass communications program. Credit is based on 3 semester hours for each 10 hours of work undertaken per week per semester. Limit is 9 total semester hours for internships. Special arrangements must be made for summer internships.

27.511 Television Production and Design (3) - Focuses on the practical aspects of planning and producing video tapes for specific instructional purposes. Covers pre-production planning, production activities, and post-production editing.

## PHL (28) Philosophy

Administered by Department of Philosophy

28.110 Critical Thinking (3) - Designed for students to learn how to think critically. Emphasis is on the construction and evaluation of arguments. Surveys several forms of argument including inductive, deductive, analogical and legal reasoning.

28.111 Introduction to Philosophy (3) - Presents reflective inquiry into selected problems of general philosophic interest. Considers the types of knowledge, individual and social values, the nature of reality and the existence of God.

28.270 Logic (3) - The study of formal deductive reasoning,

- course covers the nature of argument, Aristotelian term logic, stentential logic, predicate logic and quantification and proof theory. Students construct formal proofs and translate from natural language into logical formulas. Students must have completed 24 credit hours in any field or have permission of the instructor to take this course.
- 28.290 Medical Ethics (3) - Investigates moral issues that arise in such medical contexts as human experimentation, death and dying, medical care and its distribution, genetic engineering and the definition of health and illness.
- 28.292 Contemporary Moral Problems (3) - Investigates some of the major contemporary (and perennial) moral problems: abortion and the rights of the fetus; pornography and its control; crime and its punishment; obedience to laws; discrimination based on race and sex; decision-making procedures; social justice; drugs, suicide and euthanasia; freedom and its limits.
- 28.295 Business Ethics (Spring) (3) - Review of moral canons in relation to business practice. Moral concepts are applied in analyzing situations. Utilitarianism, Kantianism and contemporary Egalitarianism are introduced as aids in decision making. General principles and concrete cases considered.
- 28.297 Ethics (3) - Studies ethical theory focusing on such issues as ethics as a branch of knowledge, egoism vs. altruism and role of intentions and consequences in moral judgments. Reviews theories such as relativism, utilitarianism and Kantianism. Investigates concepts of "rights" and "justice."
- 28.321 Plato and Aristotle (Fall) (3) - Studies the origins of Western philosophy in ancient Greece. Examines Plato's philosophical writings in light of pre-Socratic speculation on one hand and in terms of Aristotle's criticisms and developments on the other.
- 28.324 Descartes to Kant (Spring) (3) - Examines the writings of the 17th and 18th century philosophers: Descartes, Hobbes, Locke, Berkeley, Hume, Kant and others. Topics include: the nature of reality, the sources and limits of knowledge, the relation between mind and body and the possibility of a rational basis for religious belief.
- 28.328 Existentialism (Spring/even-numbered years) (3) - Studies the writings of philosophers and theologians such as Kierkegaard, Nietzsche, Husserl, Sartre and Tillich. Major themes include human subjectivity, human freedom, alienation and meaning.
- 28.329 20th Century Philosophy (Fall/odd-numbered years) (3) - Examines 20th century philosophical movements. Emphasizes the relation between language and philosophy, particularly views about truth, free will, the nature of morality and religion and the nature of mind.
- 28.404 Philosophy of the Social Sciences (3) - Examines philosophical problems in the social sciences including objectivity, classification, explanation, the nature of laws and the nature of social facts.
- 28.405 Philosophy of Law (Fall/even-numbered years) (3) - Examines the theoretical background of the law and legal systems. Encourages students to develop their own views about the proper use of the law. Topics include the concepts of "law" and "legal system", limits of the law and justification of punishment.
- 28.406 Philosophy of Religion (3) - Presents a critical analysis of the origins and nature of faith. Emphasizes types of religion, evidence supporting religious belief and problems in and challenges to religion.
- 28.407 Contemporary Political Philosophy (Fall/odd-numbered years) (3) - Studies the nature of the good and just state, the limits and powers of the state. Investigates competing theories of neo-Aristotelianism, utilitarianism, contractarianism, libertarianism, Marxism and anarchism. Addresses questions concerning the obligations of an individual citizen to the state.
- 28.408 Feminist Philosophy (3) - Explores the major trends in feminist philosophy including liberal, Marxist, socialist, radical and psychoanalytic approaches. Explores such questions as whether women's experience differs from men's and the extent to which male domination informs woman's experience. Considers recent feminist attempts to articulate an emancipating standpoint.
- 28.418 Contemporary Philosophy of the Mind (Fall/even-numbered years) (3) - Explores the philosophical foundations of the interdisciplinary field of cognitive science. Topics discussed include contemporary scientific solutions to the mind-body problem, the possibility of artificial intelligence and the nature and success of cognitive explanations in psychology.
- 28.419 Theory of Knowledge (Spring/odd-numbered years) (3) - Inquires into the problem of knowledge, certainty and skepticism. Reviews theory of perception; discusses concepts of meaning and truth.
- 28.420 Metaphysics (3) - Introduces the main themes and literature in contemporary metaphysics. Issues explored include why there is something rather than nothing? Are there properties, numbers, propositions and sets? What are holes, surfaces and boundaries? Can an object change its parts and remain the same? Prerequisite: any philosophy course other than 28.110, 28.212 or 28.213 or permission of the instructor.
- 28.470 Independent Study in Philosophy (3-6) - Provides for individual study of a particular philosophical problem under the guidance of the staff. Emphasizes independent research on topics selected by the student and the faculty member. Course may be taken twice. Prerequisite: 6 semester hours of philosophy. See section on Independent Study.
- 28.471 Seminar (3) - Studies selected problems in philosophy.

## ART (30) Art

Administered by Department of Art

- 30.101 Introduction to Art (3) - Examines major works of art and architecture and the cultural forces that shaped them from ancient times to the present, from a global

perspective.

- 30.205 Children's Art (3) - Provides encounters with the art of children and ways to promote attitudes of discovery and invention, with emphasis on growth of expression.
- 30.385 Philosophy and Psychology of Art (3) - Studies major philosophical points of view governing an understanding and criticism of the arts, past and present.
- 30.590 Current Theories of Art and Art Education (3) - Focuses on current theories of art and art education practiced in American schools with an emphasis on eventual application. A research paper or research project is required.
- 30.591 Advanced Visual Arts for Exceptional Children (3) - Stresses importance of art activity as a means of enriching and stimulating special children's awareness of themselves and their world. Emphasis is placed on those positive aspects for creative activity which the handicapped child possesses.
- 30.595 Master's Thesis (3-6)

## ARH (31) Art History

Administered by Department of Art

- 31.215 American Art History (3) - Studies the history of visual arts in America.
- 31.225 History of Architecture (3) - Presents a study-survey of great architectural works of the past and the present including examples of both East and West.
- 31.235 Ancient and Medieval Art (3) - Studies the history of the visual arts on the European continent from the prehistoric era up to and including the Late Gothic.
- 31.236 Art from the Renaissance Through Impressionism (3) - Studies the history of the visual arts beginning with the Italian Renaissance up to and including French painting of the 19th century.
- 31.324 History of Photography (3) - Surveys the history of photography from its invention in 1839 to the present. Includes development of photography as a medium of aesthetic expression, technical evolution of photography and photography's impact on both culture and society.
- 31.345 Art History of the Near East (3) - Studies the history of the visual arts of the Islamic and the Mesopotamian worlds.
- 31.346 Art History of the Far East (3) - Studies the history of the visual arts of India, China, Japan and Southeast Asia.
- 31.355 History of Modern Art (3) - Examines movements in art from mid-19th century France to the contemporary United States.
- 31.360 Women, Art and Society (3) - Introduces students to the relationships between women and the production and reception of the visual arts in Europe and America from the Middle Ages to the present. Themes include the contributions of women artists to the history of art, the social and cultural forces that shaped representations by and of women, and the means by which images framed attitudes about femininity.
- 31.365 Italian Renaissance Art (3) - Addresses the painting, sculpture and architecture of the Renaissance in Italy with a view toward historical and social context, patronage and theory.
- 31.366 Northern Renaissance Art (3) - Introduces students to the history of the visual arts in Northern Europe from c. 1375 to 1575, during the period termed "The Renaissance." Examines major trends in painting, manuscript illumination, sculpture, printmaking and architecture in France, the Netherlands and Germany and explores the social and cultural factors that shaped the arts of the period.
- 31.373 Romanesque and Gothic Art (3) - Introduces students to the history of the visual arts in northern Europe from c. 1050 to c. 1400 during the periods termed "Romanesque" and "Gothic." Examines major trends in painting, architecture, sculpture, drawing, manuscript illumination, metal and ivory work, stained glass and tapestry and explores the social and cultural factors that shaped the arts of these periods.
- 31.375 Independent Study in Art History (3) - Research and scholarship on a selected, approved topic in art history under the supervision of a faculty member, resulting in a publishable paper.
- 31.390 The Art and Culture of Italy (3) - An examination of the art of Italy, particularly the Renaissance, with special reference to its physical and historic context, through studying original works of art in Italy, on site whenever possible. Summer only.
- 31.395 Visual Aesthetics (3) - A seminar emphasizing artistic relationships and theories of aesthetics and art criticism.
- 31.450 Perspectives on Museums (3) - Addresses the social and cultural history of art museums from the late Middle Ages through the present. Introduces the basic purposes and responsibilities of museum - collecting, preserving and interpreting - and the duties of museum staff. Explores museum ethics, training, exhibitions and technology.
- 31.451 The Museum Exhibition (3) - Provides hands-on experience by organizing and installing an exhibition in Haas Gallery of Art. Trains students in gallery design, handling and assessing physical conditions for works of art, writing educational materials, providing public functions such as tours and critically evaluating installations in other museums.
- 31.460 Research and Writing in Art History (3) - Sharpens research and writing skills for students by preparing an art history research paper that is substantial in content and length, reliant on primary visual and textural material, consistent with current art historical methodologies, and professionally crafted and presented. Oral presentations address research problems and their possible solutions.
- 31.560 Readings and Research in Contemporary Art History (3) - Detailed study of contemporary movements in

art from the late 19th century to the present with readings and research for advanced students.

- 31.565 Readings and Research in American Art History (3) - Advanced study of the history of visual art in America.
- 31.570 Readings and Research in European Art History (3) - Research focuses on specific topics relating to visual arts in Europe.
- 31.575 Readings and Research in Oriental Art History (3) - Advanced survey of Oriental Art in the broadest sense of the word, the art, and architecture of the ancient Near East, Japan, China, and India. Exposes advanced students to basic problems in chronology, style, and research methodology.
- 31.580 Readings and Research in Architectural Art History (3) - Advanced survey of the evolution of architecture in the Western World from the Pharaonic Egyptian period through the contemporary 20th century. Typical and outstanding examples of each period are discussed and researched. Imperative to an understanding of the physical structures studied is an analysis of the type of society and the rationale for the creation of such an architecture.
- 31.592 Readings and Research in Advanced Visual Aesthetics (3) - Advanced study of images and viable aesthetic positions in the plastic arts emphasizing artistic and perceptual awareness and concern with environmental relationships.
- 31.595 Directed Study in Art History (3-6) - Advanced study of a topic in the area of art history. Intensive review of the scholarly literature in the field. A paper is required under the direction of a faculty adviser.

## ARS (32) Art Studio

Administered by Department of Art

Level I courses are open to all students.

- 32.111 Drawing I (3) - Examines various approaches toward drawing and explores the use of a variety of drawing materials. Studio practice and class critiques address each person's power of observation, craftsmanship, self-expression and growth.
- 32.151 Three-Dimensional Design (3) - Introduction to the basic elements and principles of design such as the organization of visual elements and color, with emphasis on three-dimensional design.
- 32.152 Two-Dimensional Design (3) - An introduction to the basic elements and principles of design such as the organization of visual elements and color, with an emphasis on two-dimensional design.
- 32.195 Computer Art Graphics (3) - An introductory course exploring the potential of the computer as a tool to create fine art. Stresses images based on current computer technologies and use of software and computers to create new kinds of images. Emphasis on using technologies with a fine arts approach.
- 32.201 Ceramics I (3) - Introduces the processes of making

and firing ceramic objects.

- 32.202 Ceramics II (3) - Affords students the opportunity to become more involved by selecting their own methods of work. Prerequisite: 32.201.
- 32.210 Life Drawing (3) - Examines various approaches to drawing the figure. Students study anatomy and continue to develop technical facility with a variety of media. Contemporary and historical figurative concerns are examined.
- 32.212 Drawing II (3) - Continues exploration of attitudes and materials stressing composition and form. Includes work from the human skeleton and linear perspective. Prerequisite: 32.111.
- 32.221 Fabric Design I (Fall) (3) - Introduction to a variety of methods, approaches, tools, materials and visual concepts in designing with fibers.
- 32.222 Fabric Design II (Fall) (3) - Continuation of 32.221 with limited areas of concentration selected by each student. Professional methods, approaches and attitudes discussed. Prerequisite: 32.221.
- 32.231 Painting I (3) - Introduction to the methods, materials and concepts of painting. Provides exploration of and increased sensitivity to one's environment through color. Prerequisite: 32.111
- 32.232 Painting II (3) - Devotes attention to the development of the technical skill inherent in the formation of images. Includes the study of the landscape as a concept in painting. Prerequisite: 32.231.
- 32.241 Sculpture I (3) - Explores three-dimensional artistic expression with an emphasis on introducing students to basic sculptural materials.
- 32.242 Sculpture II (3) - Promotes continued development in the use of materials and processes; strives for unique individual expression. Prerequisite: 32.241.
- 32.251 Weaving I (Spring) (3) - Provides an introduction to weaving including foot-powered looms and off-loom techniques. Weaves, fibers, spinning and looms will be part of the studio experience. Prerequisite: 32.152 or consent of instructor.
- 32.252 Weaving II (3) - Requires a loom-controlled sampler plus continued experience in weaving techniques and artistic decision dealing with fibers. Prerequisite: 32.251.
- 32.261 Graphics I: Printmaking (3) - Introduction to the methods, materials and concepts of graphic art through exploration of basic printmaking techniques.
- 32.262 Graphics II: Printmaking (3) - Emphasis on color printmaking and color registration procedures. Provides a concentration in serigraphy and intaglio techniques. Prerequisite: 32.261.
- 32.275 Crafts I (3) - Introduction to a varied array of crafts, methods, tools, materials, techniques and artistic concepts.
- 32.276 Crafts II (3) - Provides a continued exploration of selected in-depth crafts processes and concepts on a more professional basis. Prerequisite: 32.275.

- 32.281 Photography I (3) - Introduction to black and white photography as a medium of visual expression. Technical emphasis on fundamental camera and exposure controls and introduction to darkroom printing techniques. Photographic style, composition and theory discussed. Students must have a 35mm camera and provide their own film and paper.
- 32.282 Photography II (3) - Continues exploration of black and white fine art photography. Emphasis on refining exposure and printing skills. Introduces zone system metering, medium format photography and alternative photographic processes. Students must have a camera and provide their own film and paper. Prerequisite: 32.281.
- 32.283 Introductory Color Photography (3) - Introduces students to color photography as a significant medium of communication and aesthetic expression and to the theory and processes involved in producing color photographs. Introduction to alternative color photographic processes will also be taught. Prerequisite: 32.281
- 32.303 Ceramics III (3) - Provides student an opportunity to specialize through the pursuit of making an art object. Prerequisite: 32.202.
- 32.304 Ceramics IV (3) - Requires students to be responsible for making, firing and showing their own wares. Prerequisite: 32.303 and permission of the instructor.
- 32.313 Drawing III (3) - Entails studio practice, outside assignments and critiques in pursuit of self-discovery and personal expression. Each student completes an individual project. Prerequisite: 32.212.
- 32.314 Drawing IV (3) - Continues studio practice and outside assignments Critiques stress individuality and deep involvement of personal expression. Each student pursues an individual project. Prerequisite: 32.313 and permission of the instructor.
- 32.323 Fabric Design III (Fall) (3) - Provides a continuation of Fabric Design II with concentration in one area selected by the student. Focus is on refining one's craft, visual perception and professional attitude. Prerequisite: 32.222.
- 32.324 Fabric Design IV (Fall) (3) - Presents a continuation of Fabric Design III with each student functioning in a highly independent and professional manner in one area. Prerequisite: 32.323 and permission of the instructor.
- 32.333 Painting III(3) - Provides development toward maturity of study and statement. Includes study of the figure as a concept in painting. Prerequisite: 32.232.
- 32.334 Painting IV (3) - Provides advanced work planned for individual needs. Paintings are structured from experiences based on previous development. Prerequisite: 32.333 and permission of the instructor.
- 32.343 Sculpture III (3) - Focuses on the expansion of expression and its relationship to sculptural processes. Prerequisite: 32.242.
- 32.344 Sculpture IV (3) - Enables advanced, independent work toward a maturing, personal expression in sculpture. Prerequisite: 32.343 and permission of the instructor.
- 32.353 Weaving III (Spring) (3) - Provides continued experience in weaving techniques with emphasis on in-depth production, two-dimensional or three-dimensional. Prerequisite: 32.252.
- 32.354 Weaving IV (Spring) (3) - Develops an individualistic approach to weaving with emphasis on in-depth production. Prerequisite: 32.353 and permission of the instructor.
- 32.363 Graphics III: Printmaking (3) - Exploration of mixed media printmaking methods and concepts. Emphasizes photographic and lithographic techniques. Prerequisite: 32.262.
- 32.364 Graphics IV: Printmaking (3) - Exploration of experimental printmaking. Emphasis on personal expression. Prerequisite: 32.363 and permission of the instructor.
- 32.383 Photography III (3) - Requires students to develop personal photographic projects to produce during the semester. Emphasizes individual exploration of black and white photographic materials and processes. Students must provide a 35 mm camera, film and paper. Prerequisite: 32.282.
- 32.384 Photography IV (3) - Requires students to produce personal photographic projects resulting in final portfolios and an exhibition of fine art photographic prints. Students must provide a 35mm camera, film and paper. Prerequisite: 32.383 and permission of the instructor.
- 32.395 Art and Culture of France (3) - Provides a study-tour of France with specific attention to French art seen in relation to its social and cultural environment. Features a new theme and visits to related areas each time course is offered. Past themes include "The Age of Francis I," "The Art of Provence," and "The Normandy Influence."
- 32.475 Independent Study in Studio Arts I (1-3) - Allows individualized independent study in a selected studio area. Amount of course credit awarded is determined by the instructor on the basis of the substance and depth of the project to be undertaken. Prerequisite: Satisfactory completion of four levels of a studio area or its equivalent.
- 32.476 Independent Study in Studio Arts II (1-3) - Extension of 32.475 Independent Study in Studio Arts I.
- 32.480 Internship in Art (3-6) - Provides upper-level art majors with an opportunity to acquire meaningful experiences in practical work situations outside the regular courses prescribed by art curriculum (e.g., museum curator, designers, merchandising operations, artists).
- 32.490 Art Gallery (3) - Provides involvement with the collection, preservation and exhibition of art work. Experience concludes with planning and hanging an exhibition in Haas Gallery of Art. Visits to museums and art galleries familiarize students with the varied nature and philosophy of exhibition today.
- 32.500 Advanced Ceramics I (3) - Requires students to de-

fine in writing their level of knowledge and competency, then prepare a plan of study that will allow for a direction of work. Students are responsible for making and firing their own work.

32.501 Advanced Ceramics II (3) - Students intensify their study of selecting a specialized problem relating to the experiences gained in Advanced Ceramics I.

32.502 Advanced Ceramics III (3) - Students continue to pursue an advanced and refined level of study in the discipline of creating an art object. A specialized problem relating to the experiences gained in the first two levels facilitates continuity in learning.

32.503 Advanced Ceramics IV (3) - Focuses on professional and philosophical attitude reflected in students' work. Students are required to have an exhibition of their work.

32.510 Advanced Drawing I (3) - Explores advanced drawing techniques and involvement of personal expression and imagery.

32.511 Advanced Drawing II (3) - Emphasis on the development of individual themes and projects.

32.512 Advanced Drawing III (3) - Focuses on personal expression and imagery for potential thesis statement - self-direction and innovation.

32.513 Advanced Drawing IV (3) - Concentration and production of drawings for a unified thesis statement.

32.520 Advanced Crafts I (3) - Advanced levels of experimentation with contemporary idioms in crafts design. Emphasis on highly professional concepts of form and methods and on investigation and refinement of techniques as a means of realizing significant visual statements in crafts. Individualized instruction and independent planning for each student on all four levels.

32.521 Advanced Crafts II (3) - Individual concentration on specific media and related techniques. Intense involvement with refined design schemes, systems, and variations that are oriented toward an increasingly more defined singular direction in crafts.

32.522 Advanced Crafts III (3) - Highly independent and mature involvement with advanced concepts, methods, and processes in a specific crafts direction. Students should begin to develop a thesis presentation which should emerge from studio experiences, independent research, and from a wide, highly selective exposure to craft objects in museums, galleries, and private studios.

32.523 Advanced Crafts IV (3) - Continued involvement with advanced concepts in crafts. Concentration on completing final works for a one-man or a one-woman show. A definitive position paper reflecting a personal philosophy in crafts should be developed.

32.530 Advanced Graphics I (3) - Advanced level exploration of traditional and/or experimental printmaking methods. Emphasis on personalized imagery and technical proficiency.

32.531 Advanced Graphics II (3) - Exploration of advanced level printmaking including color and color registra-

tion procedures.

32.532 Advanced Graphics III (3) - Focuses on personalized forms for potential thesis statement. Students are expected to be innovative and proficient in technology of printmaking.

32.533 Advanced Graphics IV (3) - Concentration on the selected forms for a unified thesis statement.

32.540 Advanced Painting I (3) - Searches into purpose of painting with specific attention to traditional methods, i.e., glazing, egg tempera, and underpainting.

32.541 Advanced Painting II (3) - Exploration and different approaches of painting for individual expression. Emphasis on achieving in representational painting.

32.542 Advanced Painting III (3) - Continued development into maturity of individual style - with emphasis on mural painting designed into architectural space.

32.543 Advanced Painting IV (3) - Mature fulfillment of personal expression. Painting should reflect continuity of intent and style. A selection of work is prepared for exhibition and thesis.

32.550 Advanced Sculpture I (3) - Requires students to define in writing their level of knowledge and philosophical direction, then prepare a plan of study that allows for a direction of work. Students are responsible for the completion of show quality pieces.

32.551 Advanced Sculpture II (3) - Emphasis on student experimentation while still being concerned with the concept form. Focus on growth and development of more positive philosophical ideas.

32.552 Advanced Sculpture III (3) - Students' work should reflect a significant transition from experimentations to a more definite direction in technique and aesthetic opinion.

32.553 Advanced Sculpture IV (3) - Students produce highly professional pieces of art while maintaining an awareness of their responsibility to society. This responsibility is fulfilled by an exhibition of each student work for a thesis.

32.580 Advanced Photography I (3) - Focuses on foundations of black and white photography for the advanced student. Emphasis on the technical controls of exposure and printing, research on historical and contemporary photographers and issues, and active participation in class critiques and lectures.

32.581 Advanced Photography II (3) - Students identify technical and conceptual problems and goals which they will pursue during the course. Written statement of intentions, self-evaluation of work, and a final portfolio required. Attendance at lectures and critiques is required.

32.582 Advanced Photography III (3) - Stresses proficiency in black and white exposure and printing. Students design a semester photographic project with a finished portfolio and exhibition as final goals. Continued class participation and development of technical skills expected.

32.583 Advanced Photography IV (3) - Students write a statement outlining their thesis work to be carried out during the course. A final thesis, exhibition, and portfolio are required.

32.595 Directed Study in Studio Art (3 or 6) - Continued development of a student's involvement in a studio area after satisfactory completion of four levels of advanced study in that area or in a related area of relevance. Consent of the instructor and the department chairperson are required.

## MUS (35) Music

Administered by Department of Music

Courses are offered each semester unless otherwise noted.

- 35.101 Music Listening (3) - Provides an approach to music listening through study of basic vocal and instrumental styles. Analysis of various masterpieces, composers and musical forms. Requires no previous musical experience. Recommended first-course in non-applied music.
- 35.103 Fundamental Musicianship (Spring) (3) - Explores personal music understanding and development through elementary terminology, symbols, theory, music reading, singing, playing and chording of simple instruments and bodily movement to music. Suggested for students with little musical background as preparation for applied study and courses 35.201, 35.210 and 35.320. Recommended first-course in applied music.
- 35.104 Jazz in America (3) - Provides an approach to jazz listening through the study of jazz vocal and instrumental styles from diverse origins to the present and beyond. Analysis of various masterpieces, composers, performers and musical forms.
- 35.106/ 35.306 Maroon and Gold Band (0-1) - Performs music of varied styles and periods. Marching band each fall, concert band each spring. Requires 5 hours per week each fall and 4 hours per week each spring.
- 35.107/ 35.307 University-Community Orchestra (0-1) Performs music appropriate to the symphony orchestra. Requires 3 hours per week. Rehearses Monday evenings. Election for wind and percussion players requires permission of the instructor.
- 35.108/ 35.308 Concert Choir (0-1) - Performs choral music of varied styles and periods. Membership by audition only. Requires 4 hours per week.
- 35.109/ 35.309 Women's Choral Ensemble (0-1) - Performs varied styles from popular to masterworks. Requires 3 hours per week. No audition required.
- 35.110/ 35.310 Husky Singers (0-1) - Performs varied music for men's chorus. Requires 2 hours per week. No audition required.
- 35.111/ 35.311 Chamber Singers (0-1) - Performs music of many styles and periods, Renaissance to present. Open to singers from other university vocal ensembles. Requires 3 hours per week. Membership by audition only.
- 35.112/ 35.312 Jazz Ensemble (0-1) - Performs jazz, swing and other forms representing the big band style. Requires 3 hours per week. Election requires permission of the instructor. Audition may be necessary.
- 36.170/ 35.370 University Chamber Orchestra (0-1) - The University Chamber Orchestra performs music appropriate to the chamber orchestra. Requires 2 hours per week. Rehearses Monday evening and one 50-minute class period. Election for wind and percussion players requires permission of the instructor.
- 35.201 Sight Singing (Fall) (2) - Development of the musical ear through progressive training. Elected by music majors or as a single course by non-music majors. Requires 3 hours. Prerequisites: 35.103, 35.210 or consent of the instructor.
- 35.203 Voice Methods (Fall) (1) - Provides group voice instruction for the beginner. Emphasizes fundamental singing techniques and solo performance. Requires 3 hours per week. For Music and Theatre Arts majors only.
- 35.204 Class Piano I (2) - Provides group piano instruction for the beginner. Emphasizes solo playing, sight-reading and creative accompaniment. Requires 3 hours per week. Limited seating.
- 35.205 Class Piano II (Spring) (2) - Develops independence in solo playing and accompanying. Continuation of 35.204 or students with demonstrated abilities. Requires 3 hours per week. Consent of instructor.
- 35.206 Class Strings (2) - Provides learning of fundamental string skills and information related to string instruments. Requires 3 hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.207 Class Brass (Fall/even-numbered years) (2) - Provides group brass instruction for the beginner or the brass player who wishes to double. Emphasizes fundamental technique and elementary performance. Requires two hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.209 Percussion Methods (1) - Fundamental percussion techniques and teaching methodology. Prerequisite: music major or permission of the instructor.
- 35.210 Music Theory I (Fall) (3) - Studies harmony, voice leading and written harmonization. Requires 3 hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.211 Music Theory II (Spring) (3) - Continues Music Theory I with the study of seventh chords and common-chord and chromatic modulations. Includes melodic and rhythmic dictation and keyboard realization. Requires 3 hours per week. Prerequisite: 35.210.
- 35.213/ 35.313 Violin (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at one semester hour each election. Consent of instructor.
- 35.214/ 35.314 Viola (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at one semester hour each election. Consent of instructor.
- 35.215/ 35.315 Violoncello (1) - Private instruction for stu-

- dents with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.216/ 35.316 Double Bass (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.217/ 35.317 Organ (1) - Private instruction for those who have previously studied organ or who have strong piano backgrounds. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.219 Basic Audio Recording (3) - Provides a theoretical and practical approach to audio recording. Studies equipment and procedures used in professional recording studios. Reserved for music majors and minors in the audio/video recording track and/or permission of the instructor.
- 35.230/ 35.330 Voice (1) - Private instruction for students with demonstrated vocal abilities. One-half hour per week. May be repeated at 1 semester hour each election. Prerequisite: 35.203 except music majors and declared music minors.
- 35.231 General Conducting (1) - General conducting is designed to give students a basic understanding of the fundamentals of choral and instrumental conducting. It will also begin training in the physical motion required of the conductor. These physical attributes include beat patterns, cueing gestures, steady tempo, *accelerando*, *ritard* and face as an expressive tool, for example. In addition, the students will study foreign musical terms (Italian, French, German), score preparation and techniques, rhythmic patterns and rehearsal techniques.
- 35.232 Woodwinds Methods I (1) - Fundamental woodwind skills in flute, oboe, and bassoon and methods for teaching these instruments. Prerequisite: music major or permission of the instructor.
- 35.233 Woodwinds Methods II (1) - Fundamental woodwind skills in clarinet and saxophone and methods for teaching these instruments. Prerequisite: music major or permission of the instructor.
- 35.235/ 35.335 Piano (1) - Private instruction for students with previous piano study. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.240/ 35.340 Trumpet (1) - Private instructions for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.241/ 35.341 Horn (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.242/ 35.342 Trombone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.243/ 35.343 Baritone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.244/ 35.344 Tuba (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.251/ 35.351 Flute (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.252/ 35.352 Oboe (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.253/ 35.353 Clarinet (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.254/ 35.354 Bassoon (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.255/ 35.355 Saxophone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.256/ 35.356 Percussion (1) - Private instruction with snare, timpani and mallets for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.270/ 35.470 Violin for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.271/ 35.471 Viola for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.272/ 35.472 Violoncello for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.273/ 35.473 Double Bass for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.274/ 35.474 Organ for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program.

- May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.275/ 35.475 Voice for Music Majors (2) - Two weekly half-hour lessons for students electing the applied voice specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.276/ 35.476 Piano for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.277/ 35.477 Trumpet for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.278/ 35.478 Horn for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.279/ 35.479 Trombone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.280/ 35.480 Baritone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.281/ 35.481 Tuba for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.282/ 35.482 Flute for Music Majors (2) - Two weekly half-hour lessons for students electing applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.283/ 35.483 Oboe for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.284/ 35.484 Clarinet for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.285/ 35.485 Bassoon for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.286/ 35.486 Saxophone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.300 Music Theory III (Fall/odd-numbered years) (3) - Continuation of music theory. Includes formal analysis, design original composition, harmonic dictation and perception skills. Requires 3 hours per week. Prerequisite: 35.211.
- 35.301 Music Theory IV (Spring/even-numbered years) (3) - Continuation of music theory. Reviews 20th century compositional practice. Includes analysis and composition. Requires 3 hours per week. Prerequisite: 35.211.
- 35.302 Piano Proficiency (1) - Provides opportunity for majors in music to gain proficiency at the keyboard. May be repeated.
- 35.303 Seminar in Piano Accompanying (2) - Provides instruction, coaching, systematic score study and critical performing experience for pianists. Requires 3 hours per week and includes performing. Offered as needed. Prerequisite: Consent of the instructor.
- 35.304 Special Topics in Music Performance (3) - Provides a unique experience in performance or the study of performance practice. Instructor develops a one-time-only study. Information is available by contacting the Department of Music. Offered as needed.
- 35.305 Special Topics in Music Appreciation (3) - Provides a study of music beyond currently available course topics. Instructor develops a one-time-only study. Information is available by contacting the Department of Music. Offered as needed.
- 35.318 Jazz Improvisation (3) - Offers the student beginning concepts in jazz improvisation through a practical approach to melody creation, jazz theory, listening and transcription of examples from such jazz legends as Charlie Parker, Dizzy Gillespie, Joe Pass, J.J. Johnson, Herbie Hancock and Charles Mingus. Prerequisite: instrumental or vocal training suggested as performance is an integral part of the course.
- 35.319 Secondary Methods and Curriculum in Music (3) - This course will provide the knowledge and skills necessary to teach music successfully in secondary schools. Education theories must be applied in practical situations such as the creation of lesson plans and the teaching of those lesson plans. Familiarity with computer-assisted music software, familiarity with the legal aspects of teaching music in high schools, and required high school observations will be included. Prerequisite: 48 hours credit.
- 35.320 Music in the Elementary School (3) - Provides students with practical skills, theoretical background and musical knowledge that will enable them to teach general music effectively in the elementary classroom. Course designed primarily for elementary education majors. Limited seating.
- 35.321 Music History to 1750 (Fall) (3) - Emphasizes understanding and appreciation of music from antiquity to

- 1750 through listening and development of a technical vocabulary.
- 35.322 Music History-1750 to Present (Spring) (3) - Provides an overview of music history from the Classical era to the present time. Includes discussion of composers and significant persons, works and development of forms and genres during this period.
- 35.324 American Music (Fall/even-numbered years) (3) - Studies works of selected American composers with reference to characteristics indigenous to American music. Prerequisite: 35.101.
- 35.325 Opera and Music Theater (Spring/even-numbered years) (3) - Studies major works of the lyric stage. Emphasizes listening to and reading works of opera, operetta and the popular theater. Prerequisite: 35.101.
- 35.327 Survey of Popular Music (Fall/odd-numbered years) (3) - Analyzes factors and elements of American popular music with emphasis on developments in the 20th century. Includes a chronological study of jazz, balladry, spiritual, country-western, theater, film and rock in comparative listening situations. Prerequisite: 35.101.
- 35.328 Choral Conducting and Methods (Spring/even-numbered years) (2) - Examines the development of techniques and abilities for participating in and supervising choral ensembles. Stresses tone production, proper breathing, choral conducting and reading of appropriate literature. Prerequisite: Music major or permission of instructor.
- 35.329 Instrumental Conducting (2) - Develops skills in baton technique and score reading with emphasis on practical application in instrumental organizations. Laboratory course with three 50-minute sessions per week. Offered as needed. Prerequisites: music major and 35.211.
- 35.331 Elementary Methods and Curriculum in Music (3) - This course will provide the knowledge and skills necessary to teach music successfully in elementary schools. Education theories must be applied in practical situations such as the creation of lesson plans and the teaching of those lesson plans. Familiarity with computer assisted music software, familiarity with the legal aspects of teaching music in elementary schools, and required elementary school observations will be included.
- 35.350 Seminar in Music Theater (3) - Studies the Broadway musical with special emphasis on works currently in production. Offered in conjunction with music theater productions during spring and summer semesters. Prerequisite: 35.101.
- 35.410 Music Theory V, Counterpoint (Fall/even-numbered years) (2) - Continuation of music theory. Studies melodic writing in two and three voices using 18th century style. Requires 2 hours per week. Prerequisite: 35.211.
- 35.411 Music Theory VI, Orchestration (Spring/odd-numbered years) (2) - Continuation of music theory. Examines instrumental transposition, idioms, score writing and analysis. Requires 3 hours per week. Prerequisite: 35.211.
- 35.430 Seminar in Music History I (2) - Emphasizes development of skill in independent research in areas of music history for majors in music electing the music history specialization. Offered fall, even-numbered years. Prerequisite: 35.321, 35.322.
- 35.431 Seminar in Music History II (1) - Continuation of 35.430 with emphasis on academic research and musicology for majors in music electing the music history specialization. Offered spring, odd-numbered years. Prerequisite: 35.430.
- 35.497 Internships in Music (3-15) - Provides for extended off-campus field experience to be arranged by the major in music, a faculty adviser and an off-campus agency. Requires consent of music department during prescheduling. Offered as needed.
- 35.498 Independent Study in Music (1-3) - Provides for a student project of a creative nature in music history, education or performance. Requires consent of music department during prescheduling. 30.

## ECN (40) Economics

Administered by Department of Economics

- 40.121 Principles of Economics I (3) - Studies macroeconomics: nature of the economic problem; economic concepts; institutional framework; supply, demand and the price system; national income accounting; determination of output and employment levels; consumption, saving and investment behavior; inflation and unemployment; business cycles; monetary and fiscal institutions and theory; economic growth.
- 40.122 Principles of Economics II (3) - Studies microeconomics: supply, demand, the price system; cost and productions analysis, theory of consumer behavior and the firm; output and price determination, resource allocation and determination of factor incomes under perfect and imperfect markets; current economic problems and international economics. Prerequisite: 40.121.
- 40.156 Business and Economic Mathematics (3) - Presents an introduction to basic mathematical tools most frequently employed in economics and business, e.g., systems of linear equations, inequalities, elements of linear programming, matrix algebra, logarithms, mathematics of finance and differential and integral calculus.
- 40.221 Intermediate Macroeconomic Theory (3) - Stresses the national income analysis; theory of income determination, employment and price levels; monetary and fiscal institutions; theory and policy; investment, interest and demand for money; business cycles; inflation and unemployment; national debt; macroeconomic equilibrium; prices, wages and aggregate supply; economic growth, foreign trade and balance of payments; economic policy. Prerequisites: 40.121, 40.122, 40.156.
- 40.222 Intermediate Micro-Theory and Managerial Economics (3) - Reviews the theory of consumer behavior and the firm; output and price determination under different market systems; pure competition, pure monopoly, oligopoly and monopolistic competition; production

- and cost analysis; allocation of resource and distribution of income; comparison of behaviors of competitive, monopolistic and oligopolistic product and resource markets; constrained and nonconstrained optimization techniques and their applications to business decisions and business practices; welfare economics. Prerequisites: 40.121, 40.122, 40.156.
- 40.256 Business and Economics Statistics I (3) - Organizing and presenting data, descriptive statistics, elements of probability and probability distributions, sampling and sampling distributions, estimation and hypothesis testing, analysis of variance and Chi-square, introduction to regression and correlation as applied to business and economic problems. Prerequisite: 40.122.
- 40.313 Labor Economics (3) - Presents the economics of the labor market, the supply of and demand for labor, the nature of theory and wages, productivity and inflation, unionism, theories of the labor movement, collective bargaining and public policy. A major focus is the relationship between labor markets and gender and racial issues. For each of the economic issues, the implications with respect to gender and race will be examined. The economic analysis and empirical data presented in the course will emphasize differences by race and gender. Prerequisite: 40.122.
- 40.315 Business and Government (3) - Surveys government policies for maintaining competition, for substitution regulation in place of competition and for substituting public for private enterprise; tests of various government policies in light of economic theory and historical experience. Prerequisite: 40.122.
- 40.316 Urban Economics (3) - Applies economic theory and recent empirical findings to urban resource use. Analyzes problems of unemployment, housing, education, transportation, pollution and equal opportunity. Prerequisite: 40.122.
- 40.317 Population and Resource Problems (3) - Reviews classical theories of population growth; recent economic models of population correlating natural resources; capital accumulation and technological change; and population problems in North America, European and developing countries. Analyzes recent trends in birth and death rates as factors in population growth. Studies measures of population and labor force, their distribution by age, sex, occupation, regions; techniques for projecting population levels. Course is not offered on a regular basis. Prerequisite: 40.122.
- 40.322 Contrasting Economics (3) - Outlines theories of capitalism and socialism with a special emphasis on Marxian theory. Compares theoretical and actual performance of capitalism, socialism and communism. Prerequisite: 40.122.
- 40.323 History of Economic Thought (3) - Surveys economic theories propounded in the past and their effect on present-day thinking about economic, business and political systems. The surplus value theory; economic planning as part of government responsibility; relation of family budgets to Engel's Law; government responsibility for employment and rent control. Prerequisite: 40.122.
- 40.324 Economic History of the Western World (3) - Presents a comparative analysis of the economic theory of the United States and Europe with particular attention to the interplay of changes in business, financial and labor institutions, products and production, adaptations to resource differences and conflicting economic doctrines. Prerequisite: 40.122.
- 40.326 Public Finance (3) - Analyzes revenues and expenditures of local, state and national government in light of micro and macrotheory; criteria and models of government services; subsidies, etc., the principles of taxation, public borrowing and public debt management; impact of fiscal and budgetary policy on resource and income allocation, internal price and employment stability; the rate of growth and world economy. Prerequisite: 40.122.
- 40.327 Money and Banking (3) - Reviews the historical background and the development of monetary practices and principles of banking; special attention given to commercial banking and credit regulations and current monetary and banking development. Prerequisite: 40.122.
- 40.329 Environmental Economics (3) - A study of the economics of environmental quality. Examines environmental facts and social circumstances with particular emphasis on market and non-market solutions to the environmental problems. Topics include the private market and its efficiency, externalities, environmental quality as a public good, income distribution effects of government environmental quality as a public good, income distribution effects of government environmental programs; water resources and water quality, problem of air quality and quality of life and other environmental problems; prohibitions on and regulation of polluting activities, taxes, subsidies and effluent charges; population, economic growth and environmental quality. Prerequisite: 40.122.
- 40.333 International Economics (3) - Addresses the pure theory of international trade. Outlines the gains from trade; free trade and protection; balance of payments; foreign exchange and capital movements; the dollar and the international monetary system and international liquidity shortage. Prerequisite: 40.122.
- 40.334 Economic Growth of Underdeveloped Areas (3) - Presents studies of stagnating economies; theories of underdevelopment; operative resistances to economic growth; the role of capital, labor, population growth and technological advance; development planning and trade in development settings. Prerequisite: 40.122.
- 40.356 Business and Economic Statistics II (3) - Probability distributions; regression and correlation analysis; analysis of variance and designs of experiments; time series analysis and index numbers, non-parametric methods; modern decision theory and Bayesian statistics; computer application. Prerequisites: 40.122, 40.256.
- 40.456 Introduction to Econometrics (3) - Applies modern statistical methods to economic problems; time series and cross-sectional analysis of measurements of demand and costs; macroeconomics models; income distribu-

tion and growth model. Prerequisites: 40.122, 40.256.

- 40.460 Advanced Political Economy (3) - Applies economic and political models of social decision making to historical problems from local through international levels. Presents an evaluation of market; political and mixed techniques in particular areas from the 18th through the 20th centuries. Prerequisite: 40.122.
- 40.470 Senior Seminar (3) - Discusses the current literature on economic theory and economic policy. Students read one journal article a week on which they write a report and make a seminar presentation. Prerequisite: Senior standing or consent of the instructor.
- 40.490 Independent Study in Economics (1-3) - Provides students with an opportunity to receive individualized instruction as they pursue in-depth inquiries into previously specified subject matter of special interest within the field of economics. Topic and outline must be developed with a faculty sponsor and approved by the department during the preceding semester of residence.
- 40.513 Origin and Development of Capitalism (3) - Covers transition from feudalism to capitalism and the subsequent influence of leading capitalist institutions on industry, agriculture, commerce, banking, and the social movement.
- 40.514 Labor Economic Theory (3) - Emphasizes labor economic theory and its application in analyzing the issues of employment and inflation. Topics include growth of the labor force and its composition, wage theories and wage structures, trade unionism and income distribution, economics of poverty, minimum wage, and hour laws, and civil legislation. Occupational choices, job search, labor mobility, and human capital formation included. Students are exposed to research and measurement methodology to meet the research requirements of the course.
- 40.515 Public Policy and Business (3) - Focuses on public policies affecting the economy; historical, philosophical, and legal basis of regulation; the rationale of free enterprise. Intensive analysis of selected areas of economic policy related to government action.
- 40.531 Current Economic Problems (3) - Examines economic problems of current interest and concern to our society. Basic economic principles and theories and the thinking of recognized economists of the past and present as revealed in their published works.
- 40.532 Comparative Economic Systems (3) - Compares workings and performance of the major forms of economic organization: capitalist systems; the modern welfare states; state capitalism; communism; and socialism.
- 40.533 International Economic Policies and Relations (3) - Applies modern international economic and financial analyses to emerging contemporary problems of nations trading with one another. Selected topics include: customs unions; optimum currency area; international cartels; and flexible exchange rates. Focuses on impact of governmental and intergovernmental relations and regulations.

## GEO (41) Geography

Administered by Department of Geography and Geosciences

- 41.101 World Physical Geography (3) - Studies Earth-sun relationships, land masses, oceans, landforms, weather and climate and natural resources as elements and controls related to the adjustments humans make to their environment.
- 41.102 World Cultural Geography (3) - Demonstrates the relationship of humankind, land, culture and economic activities.
- 41.105 Environmental Issues and Choices (3) - Examines contemporary environmental resource issues within a values, ethics and decision-making framework.
- 41.125 Weather and Climate (3) - Studies the interrelationships between the elements of weather and climate; elaborates on the functional application of these elements through a study of climatic realms.
- 41.200 Geography of United States and Canada (3) - Presents a spatial analysis of the United States and Canada emphasizing such concepts as environmental perception and sequent occupancy; considers salient problems within geographic regions in terms of genesis and potential for solution.
- 41.201 Geography of Europe (3) - Studies Europe's physical characteristics, topography, transportation systems, resources, populations and trade.
- 41.202 Geography of Latin America (3) - Examines Latin America as a major geographic region in terms of those economic, racial and cultural forms that have provided regional unity and diversity.
- 41.203 Geography of Australia (3) - A regional and spatial analysis of Australia within a physical, cultural, economic and environmental context. Examines Australia's historic and contemporary role within the Asian-Pacific sphere.
- 41.204 Geography of South Asia (3) - Provides a survey of the physical and human geography of South Asia, particularly India, Pakistan, Bangladesh, Nepal and Sri Lanka. Examines the major environmental, economic and cultural geography patterns, processes and issues.
- 41.221 Economic Geography (3) - Reviews major economic activities; focuses on significant characteristics, location theory and spatial patterns.
- 41.242 Map Skills (3) - Uses a variety of published maps for interpreting and interrelating past and present physical and cultural phenomena with a view toward the future.
- 41.250 Elements of Planning (3) - Acquaints students with the philosophy of planning, the roles of the planner and planning objectives.
- 41.258 Environmental Conservation (3) - Identifies resource management and environmental problems and offers possible alternative solutions for these problems.

- 41.264 Applied Cartography (4) - Studies fundamental principles, use of graphic media, methods of construction, use and interpretation of maps, models, charts and diagrams, utilized in geography and in urban and regional planning.
- 41.281-289 Special Topics in Geography (3) - Presents areas of geographic interest to a general audience.
- 41.301 Water Resources Management (3) - An examination of contemporary water resource issues related to environmental planning and management.
- 41.302 Land Resources Management (3) - An examination of selected land-related issues and problems with the objective of identifying appropriate management techniques.
- 41.303 Soil Resources Management (4) - Provides a thorough background to the geoenvironmental aspects of soil such as its nature and properties, factors of soil formation, classification and geographical distribution. Examines the interpretation of soil surveys and their role in land use and resource planning, conservation and management and environmental quality.
- 41.304 Environmental Valuation (3) - Provides a conceptual and methodological framework for evaluating environmental resources. Emphasis is on quantitative valuation techniques that help separate facts from emotion in complex environmental problems. Prerequisite: 41.105 or permission of the instructor.
- 41.305 Environmental Risks and Hazards (3) - Explores the human and environmental contributions to the generation and management of risks and hazards originating from extreme natural events and technological failures. Contemporary public policy issues at the local, national and international levels are reviewed with an emphasis on geographic themes in hazards and emerging management technologies. Prerequisites: 41.101 or 51.107.
- 41.310 Population Geography (3) - Analyzes physical, human and economic factors that influence the changing pattern of the political map of the world.
- 41.315 Geography of Recreation, Tourism and Sport (3) - Explores the array of contemporary issues involving land, leisure and recreational planning.
- 41.342 Geographic Information Systems (3) - Presents an introduction to computer-assisted analysis of geographic data. Emphasizes GIS applications in management of natural resources, environmental assessment and urban and regional planning. Laboratory projects provide opportunities to develop computer expertise. Prerequisite: 41.242 or 41.264 or consent of the instructor.
- 41.350 Advanced Planning (3) - Presents the development of skills and techniques used in analysis, plan preparation, goal setting and implementation of urban and regional planning processes and activities. Prerequisite: 41.250 or consent of instructor.
- 41.363 Urban Geography (3) - Provides a conceptual and methodological framework in which to view the process of urbanization.
- 41.462 Techniques of Geographic Measurement (3) - Data handling and map symbolization emphasized in this spatial analysis course. Topics in descriptive and inferential statistics are explored with an emphasis on applications to problems with spatial dimensions. Prerequisite: 41.242 or consent of the instructor.
- 41.475 Independent Study in Geography (1-3) - Provides independent, investigative research oriented to studies of specific geographical problems. Prerequisite: Open to juniors and seniors majoring in geography.
- 41.496 Internship in Geography (3-12) - Provides for on-site work experience in an appropriate agency or business. Internship is intended to integrate classroom learning with practical work experience emphasizing the functions, projects and responsibilities available at the internship site. Prerequisites: Major in Geography, Option 1, appropriate completion of course requirements in the option and consent of the instructor.
- 41.497 Internship in Planning (12) - Involves the placement of a student who is enrolled in the course of study in urban/regional planning or environmental planning into a planning office for twelve weeks during a summer. The student is actively involved in the functions and activities of that planning office during that time.
- 41.498 Applied Planning Seminar (3) - Provides an opportunity for reporting and analyzing experiences in internship. Integrates and utilizes practice in the development of land use from an urban or environmental perspective. Taken in coordination with the internship in planning (41.497) or geography (41.496).

## HIS (42) History

Administered by Department of History

Prerequisites are subject to modification by the instructor

- 42.100 Transatlantic World in the 20th Century (3) - Represents an analysis comparing and contrasting the experiences of Americans and Western Europeans in the 20th century. Focuses on the decay of Western traditions, the dilemma of the individual in an increasingly complex society and the rise of "technocratic" civilization. Provides insight into roots of current events, promotes sense of historic awareness beyond the national level and enhances appreciation of basic similarities and differences among Americans and Western Europeans.
- 42.112 Origins of the Modern World (3) - Describes the political, economic, social, intellectual and military developments that shaped the story of mankind from the early Renaissance to the early 19th century.
- 42.113 The Modern World (3) - Reviews the political, economic, social, intellectual and technological elements of 19th and 20th century history, showing the progress of the Western tradition and the growing importance of the non-Western world.
- 42.121 United States History Survey: Colonial Period to 1877 (3) - Presents a chronological history to 1877 with emphasis on foreign affairs and the evolution of politics, economics, society and culture.

- 42.122 United States History Survey: 1877 to the Present (3) - Presents political, social, cultural, intellectual, economic and foreign affairs developments of the United States from Reconstruction to the present.
- 42.131 Asian Civilization to 1500 (3) - Surveys the history and culture of West, South, East, Southeast and Central Asia. West Asia, South Asia, East Asia: emphasis on the intellectual, cultural, social and political development of the Muslim, Hindu and Chinese civilizations and the influence of these civilizations on Korea, Japan, Vietnam and the rest of Southeast Asia. Central Asia: emphasis on the development of the Mongol empire and the interchange this empire allowed between Asia and the European and African continents. Diversity course.
- 42.133 The Ancient and Medieval Worlds (3) - Surveys from the Ancient Near East to the fall of the Roman Empire in the West, emphasizing Greece, Rome and the rise of Christianity; a study of the people and countries of the West that emerged after the fall of the Roman Empire, with emphasis on feudalism, manorialism and the medieval church.
- 42.141 Modern China and Japan (3) - Focuses on modern China and Japan and closely studies the value system of these peoples as reflected in their politics, arts and communications in the 19th and 20th centuries. Particular attention paid to the interaction between the old models provided by Confucianism and Buddhism with the models provided by the West during modernization. Not offered every semester. Approved for diversity requirement.
- 42.142 Latin America: From European Colonization to the Present (3) - A concise introductory survey of Latin American history from 1492 to the present, stressing the significant economic and social factors in its evolution. Not offered every semester. Approved for diversity requirement.
- 42.143 Black Africa (3) - Presents a survey of the transformation of the societies of Sub-Saharan Africa from colonialism to national independence. Approved for diversity requirement.
- 42.144 Islamic and Hindu Worlds: Middle East, India and Malaysia (3) - Introductory course surveying the religious, cultural, economic and political history of the Middle East, North Africa, the Indian subcontinent, the Malay Archipelago and their bearing on contemporary Third World problems. Not offered every semester.
- 42.208 Contemporary Issues in U.S. History (3) - Examines selected issues of social, political or foreign affairs within a historical context, describing the origin, evolution, current significance and importance in American society. The issues may vary each semester.
- 42.210 Values in Conflict in 20th Century History (3) - Presents select American conflicts in the 1960s involving values of the individual and the civilization; resolutions achieved are reviewed and evaluated. The selection of conflicts varies each semester. Approved for diversity requirement.
- 42.215 Global Issues in History: A Conflict of Values (3) - Introduces the historical and global nature of many of today's critical issues that have far reaching consequences. Population explosion, famine in the underdeveloped world, energy crisis, terrorism and the spread of nuclear weapons are illustrative of some of the issues that will be examined. Attention will be given to defining values as related to these issues.
- 42.222 Business History of the United States (3) - Focuses on the evolution of business from 1600 to the present, entrepreneurial leadership of major businessmen and the history of major modern industries.
- 42.223 Economic History of the United States (3) - Focuses on the changing nature of the American economy. This course covers three time periods: the commercial-agricultural age, the industrial age and the modern managerial age. Examines agriculture, banking, business administration, commerce, labor, manufacturing, mining and transportation, social and political factors that contributed to changing economic relationships in the United States.
- 42.224 The Immigrant Experience (3) - Provides an overview of cultural diversity in American society by focusing on the history of immigration from the colonial period to the present. Students examine ethnicity in America through the study of political, economic, religious and social issues; industrialization and urbanization; attitudes of nativism, discrimination and racism; and powerful influences of immigrant kinship networks, ethnic community associations, cultural traditions, religious institutions and ethnic group identity. Lectures include new historical interpretations of cross-cultural relationships and new assimilation theories. Not offered every semester. Approved for diversity requirement.
- 42.226 Popular Culture in America (3) - Review of major forms of popular culture in America from colonial beginnings to the present, telescoped to permit fullest presentation of the period since 1920. Course blends continuity of values and ideas in American culture with dynamics of change to which the culture constantly adjusts. Not offered every semester.
- 42.228 African-American History (3) - Examines the nature and meaning of the African-American experience in the United States surveyed from its beginnings to the present. Reviews black creative expressions in the visual arts, music, literature, philosophic thought and social history. Approved for diversity requirement.
- 42.229 Modern World Leaders (3) - Studies significant world leaders in religion, politics, war and culture and their impact on world history. Focuses on different leaders each time offered and covers a selected period from the Renaissance to the present. Analyzes the conditions which helped produce these leaders and ends by discussing reasons for their success or failure. Includes only leaders who have made a significant contribution outside their national boundaries.
- 42.250 History of Science (3) - Studies historical development of the sciences and the nature of scientific thought and method; provides understanding of the characteristics of the sciences as well as their significance to human

- progress from antiquity to the present. Not offered every semester.
- 42.260 Sport and Society in America (3) - Presents a cultural approach to organized sport in the United States; proceeds from the premise that sport mirrors the values, states of technology and the conditions of society. Emphasizes the rise of the institution of sport and its impact on business, commercialism, leisure, affluence, urbanism, nationalism and the problems of governance and law. Not offered every semester.
- 42.281 Military History I (3) - Studies organized warfare from its origins to the last campaign of Napoleon I, concentrating on strategy and tactics. Examines moral and social problems raised by warfare. Not offered every semester.
- 42.282 Military History II (3) - Studies organized warfare and the theory of war from the Napoleonic age to the present, concentrating on strategy and tactics. Examines the socio-political background, especially of the two world wars and the age of guerrilla warfare. Not offered every semester.
- 42.315 Origins of Civilization: The Ancient Near East (3) - Surveys known origins of civilization in the Neolithic, Bronze and Iron ages in Mesopotamia, Egypt, Anatolia and Syria-Palestine, with some attention to India and China. Not offered every semester. Prerequisite: 42.133 or consent of the instructor.
- 42.318 Early England: The Making of an Island State (3) - Reviews political, economic, social and cultural life in England to the Glorious Revolution. Not offered every semester.
- 42.319 Modern England: The First Industrial Empire (3) - Examines political, social, economic and cultural development in England from the Glorious Revolution to the present with emphasis on the development of democracy, the Industrial Revolution and the growth and decline of the British Empire. Not offered every semester.
- 42.320 French Revolution and Napoleon (3) - Analyzes 1789-1815 era in France and assesses its significance for the history of France and the world. Not offered every semester. Prerequisite: 42.112 or consent of the instructor.
- 42.324 Revolutionary Europe and the Rise of Modern Traditions, 1600-1789 (3) - Discusses the rise of the modern state; the political, intellectual, social, economic and cultural aspects of the eras of the Scientific Revolution and Enlightenment; the establishment of European world hegemony and a world economy; the diplomatic and military interaction of the European states. Not offered every semester.
- 42.326 Europe 1789-1914 (3) - Analysis of Europe's "long nineteenth century." with particular emphasis on the nexus of political and social history. Not offered every semester.. Prerequisite: 42.113 or consent of the instructor.
- 42.327 Europe in the Age of Total War, 1914-1945 (3) - Examines origins of World War I and alliance systems that fought it, diplomacy, military strategy, tactics of the war and the peace treaties of 1918-1920, plus the rise of Mussolini, Stalin, Hitler and the lesser dictators along with the international crises that finally culminated in the outbreak of World War II. Course stresses ideological and global pattern developments. Not offered every semester.
- 42.328 Cold War Europe, 1945-Present (3) - Surveys European powers in the late 1930s with emphasis on the forces leading to war; military and diplomatic developments of World War II and the causes of the East-West rift; the reconstruction of democratic Europe and formation of the Soviet bloc; European integration and political trends in both power systems. Not offered every semester.
- 42.329 The American Woman (3) - Studies the history of women in America from colonial times to the present; topics include women's work, family life, politics, sexuality, education, feminism and reactions against it and the many facets of women's public and private roles in the nation's history. Approved for diversity requirement.
- 42.335 History of Christianity (3) - Promotes student analysis of the ancient, medieval and modern roots of contemporary Christian denominations and movements. Primary and secondary historical sources are discussed seminar-style in order to critically examine important ideas, personalities and historical conditions of Christianity. Prerequisite: Any course in history or consent of the instructor.
- 42.336 Medieval Europe (3) - An analysis of European history from 300 to 1400, focusing on political, social, religious and intellectual trends during the period. Feudalism, church history and commercial relations receive particular emphasis. Examines the status of women in medieval society. Prerequisite: 42.112.
- 42.337 Europe in the Renaissance and Reformation (3) - A detailed analysis of European history from 1300 to 1650, focusing upon the intellectual and artistic movement known as the Renaissance and the religious upheaval associated with the terms "Reformation" and "Counter-reformation." Political, social, intellectual and religious trends are highlighted. Prerequisite: 42.112.
- 42.346 Modern European Intellectual History (3) - Relates changes in currents of thought during the period to political, economic and social developments. Special attention given to interpretations of major intellectual movements. Not offered every semester.
- 42.347 History of the Holocaust (3) - Focuses upon the major theme-the genesis and implementation of the planned destruction of European Jewry from 1933 to 1945; briefly traces the history of anti-Semitism and evaluates scope of prejudice, discrimination and genocide in contemporary civilization. Includes an analysis of literature of the Holocaust and evaluation of the Holocaust's impact on modern-day Israel or the world Jewish community. Not offered every semester.
- 42.356 Russia to 1917 (3) - Analysis of Russian political and social history from the ninth century to 1917, with emphasis on the 18th and 19th centuries. Not offered every

ery semester.

- 42.372 Colonial America and the War of Independence (3) - Reviews European colonization in North America with major attention to the establishment and development of England's colonies, an emerging American society and problems which created conflict between the Americans and the British resulting in the American War of Independence. Not offered every semester.
- 42.374 U.S. Social History (3) - Focuses on everyday life in the past and how ordinary people made history and were affected by historical change. Emphasis on family life, as a way of exploring issues of race, gender and ethnicity. Prerequisites: 42.121 and/or 42.122.
- 42.379 The New Nation: United States, 1781-1845 (3) - Reviews the impact of the democratic experiment on government, the economy, culture and society. Among subjects studied are political parties, railroads, popular music and anti-slavery. Not offered every semester.
- 42.381 Civil War, Reconstruction and Industrialization: United States, 1845-1896 (3) - Surveys the causes of the Civil War, the war itself, reconstruction and industrialization. Topics include politics, ideology, military technology and tactics, race and gender issues, the economy, labor, immigration and popular culture. Prerequisite: 42.121.
- 42.383 Shaping of Contemporary America, 1896-1941 (3) - Examines during these years major changes: imperialistic adventures, reluctant but expectant involvement in World War I, the "flaming '20s," and the nation's greatest depression. Out of these emerges the modern mass-centered welfare state. Not offered every semester.
- 42.385 Recent American History: 1941 to the Present (3) - Examines the major political, economic, social-cultural and intellectual developments in the United States from 1941 to the present. Cold War, Korea and Vietnam, turmoil of the 1960s, nuclear concerns and the role of the individual in an increasingly complex, technological society are some of the major themes examined. Not offered every semester.
- 42.388 Pennsylvania (3) - Examines major contributions of Pennsylvania to national life, relations between state and national movement. Not offered every semester.
- 42.391 Diplomatic History of the United States to 1898 (3) - Presents a critical analysis of United States foreign relations from the Colonial Period to the 1898 war with Spain. Not offered every semester.
- 42.392 Diplomatic History of the United States Since 1898 (3) - Presents a critical analysis of United States foreign relations from the war with Spain in 1898 to present. Not offered every semester.
- 42.395 African-American Radicalism in the 20th Century (3) - Examines the major black radicals and their philosophies and movements in 20th Century America. Special emphasis will be placed on the following figures: W.E.B. DuBois, Marcus Garvey, Malcolm X, Stokely Carmichael (Kwame Toure), Angela Davis, Amiri Baraka, the Black Panther Party and Louis Farahkhan of the Nation of Islam. Approved for diversity requirement.

42.397 Independent Study in History (1-4) - The topic selected must be approved by a committee appointed by the chairperson. Independent reading and/or research related to some aspect of history is supervised by an appropriate member of the department. A student may register for this course no more than twice and credits may not exceed 4 semester hours. See the section on Independent Study. Prerequisite: 60 semester hours.

42.398 Research and Writing Skills (3) - Focuses on the development of proficient research and writing skills. Students learn to fully utilize library and research facilities; develop skills in analyzing and interpreting original/primary research documents; and produce a clear, concise and well-written lengthy formal paper. In addition, students develop an understanding of how and why history is written and revised.

42.404 Topics in American History (3) - Seminar allows students to focus on a specific topic or related topics in American history for in-depth study and analysis. Includes historiography of the chosen topic, discussion of problems associated with the topic and production of a research paper. Topics vary from semester to semester.

42.405 / 42.505 - The Jews of Europe: 1450 to Present (3) - Analysis of European Jewish history from 1450 to the present, with particular attention to the problem of Jews' legal status; social and economic relations between Jews and dominant communities; Jewish participation in national politics; Jewish political self-organization and communal organization; Jewish family life and gender relations; and the demographics of Jewish communities. Not offered every semester. Prerequisites: 42.112 or 42.113 if enrolling in 42.405; none if enrolling in 42.505.

42.416 / 42.516 The Classical World: Ancient Greece and Rome (3) - Covers ancient Greek and Roman history and culture. Greece: emphasis on Aegean civilizations, the age of Pericles and the Hellenistic age after Alexander the Great. Rome: emphasis on early monarchy and republic, imperial expansion, the Pax Romana and the decline and fall of the empire; concluding with the Barbarian age and the rise of Byzantium. Not offered every semester. Prerequisite: 42.133 or consent of the instructor for 42.416; graduate status for 42.516.

42.452 Soviet Russia (3) - Presents a critical analysis of the political, social, economic and cultural evolution of the Soviet Union and a study of Soviet foreign policy. Not offered every semester. Prerequisite: 42.113.

42.453 Problems of Contemporary Latin America (3) - Analyzes recent events or movements that may indicate recurrence of historical problems or major developments of international significance in selected countries of Latin America. Not offered every semester.

42.460, 42.461 Topics in European History (3) - Investigates select topics in European history. Seminar-style course studies variety of problems in European history, in the medieval, early modern and modern periods. Discusses and analyzes secondary materials on the history, philosophy, politics, science and art of a chosen period. Re-

- search paper required. Topics vary from semester to semester. Prerequisite: 42.112 or 42.133.
- 42.469 Women and Gender in European Intellectual History I (3) - Investigates the condition of women, of female views concerning that condition and the view of males concerning women, over the course of western history. Women and Gender I covers the ancient, medieval and early-modern periods (c.650 BC - 1650 AD). Prerequisite: two 100-level courses in history or consent of the instructor. Approved for diversity requirement.
- 42.470 Women and Gender in European Intellectual History II (3) - Investigates the condition of women, of female views concerning that condition and the view of males concerning women, over the course of western history. Women and Gender II covers the Scientific Revolution to the present (c.1550-1995). Prerequisite: two 100-level courses in history or consent of the instructor. Approved for diversity requirement.
- 42.472 History of Labor in the United States (3) - Surveys the emergence and development of organized labor from the post-Civil War period to the present. A third of the course is devoted to an analysis of contemporary labor-management problems and labor's changing role in our increasingly technological society. Prerequisite: 3 semester hours in history.
- 42.497 Internship in History (3-12) - Provides a work-study experience jointly administered by an academic faculty member and a sponsoring employer, with about 40 hours of supervised work generating each semester hour. Prerequisite: For history majors, 15 semester hours of history, including 42.398. Other majors may enroll with consent of advisers. Note: A student may not apply more than 3 semester hours of internship toward the fulfillment of the history major, although a student may enroll for more than 3 semester hours of 42.497.
- 44.181 Contemporary Issues in World Politics (3) - An introduction to international politics through an examination of such critical problems as war and peace, nation-building, revolution, ethnic conflict and democratization.
- 44.207 Ethics, Politics and Public Policy (3) - Examination of normative, descriptive and metaethical approaches employed by politicians and policymakers in confronting issues of responsibility and choice in public programs and policies. Focuses on ethical problems and responses in civic life and emphasizes the ways alternatives impact on society.
- 44.210 Introduction to Political Theory (3) - An introduction to fundamental political concepts such as liberty, justice, equality, power and authority, as well as the main ideas of some representative political philosophers from Socrates to the present.
- 44.222 Women and Politics (3) - Emphasizes political systems and the broad range of issues that find women as the recipients of and makers of public action and policy. Examines issues that unify and divide women as they attempt to understand the problems of becoming equal in an unequal society. The role of women in the United States and in other nations is explored. Approved as a diversity course.
- 44.280 Introduction to International Relations (3) - Examines sources of international conflict and cooperation, power politics in the international arena, problems of collective security, the settlement of disputes, diplomacy and international law.
- 44.303 Politics and the Arts (3) - Surveys painting, music, films, poetry and novels to show the relationship between these media and political concepts, philosophies and problems.
- 44.322 Political Violence (3) - Surveys individual, group and mass political violence, concentrating on causes and manifestations. Studies positive and negative effectiveness of political violence with the object of placing the phenomena in meaningful historical and contemporary contexts.
- 44.326 Parties, Groups and Public Opinion (3) - Examines the development of political parties in the United States; elections, voter behavior and political participation; and the role of interest groups and political propaganda.
- 44.336 Public Administration Theory (3) - Introductory course to the study of the "management of government business." Examines the multi-dimensional nature of Public Administration by exploring the political, social and economic factors influencing the public sector administration in the United States. Areas of emphasis include principles of public administration organization theory, personnel management, public budgeting, public policy formulation and implementation and collective bargaining in the public sector.
- 44.366 Political Systems of Western Europe (3) - Examines democracy as practiced in Western Europe; the politics and governments of Great Britain, France and Germany.

## PLS (44) Political Science

Administered by Department of Political Science

- 44.101 Elements of Political Science (3) - Uses the procedures of political science to study power and examines the processes of politics and the practices of governments, the performance of and the pressures on the political system. For non-majors.
- 44.108 Contemporary Political Ideologies (3) - An introduction to those political beliefs that shape contemporary politics: nationalism, liberalism, conservatism, socialism, feminism, religious fundamentalism, populism.
- 44.120 United States Government (3) - Introduces government and politics in the United States, emphasizing constitutional development, political development, civil rights, parties, elections, pressure groups, the Congress, the president, courts and contemporary problems, such as foreign affairs, defense, unemployment and poverty.
- 44.160 Nations, States and Governments (3) - Presents a comparative study of the governance of countries or nation-states in selected developed and less developed regions of the world.

- 44.371 Political Systems - Africa (3) - Examines problems of newly independent states, the struggle for independence, attempts to create national unity and create political stability, economic and political development, the role of the military in politics and politics in the Republic of South Africa.
- 44.375 Multiculturalist Theory (3) - Treats the issues of concern generated from an attention to and appreciation of, our diverse cultural identities. As a theory course, it approaches multiculturalism as a new attempt to respond to the challenges that difference poses in democratic theory. .
- 44.376 Government and Politics of the Middle East (3) - Introduces the political history and governments of particular states in the region and considers their interactions regionally and internationally. Considers in particular the importance of Islam in politics, the Arab-Israeli conflict, the Iranian revolution, the Iraqi wars.
- 44.377 Feminist Political Theory (3) - Explores various strands of feminist political thought and approaches to philosophical critique. The primary aim of the course is to familiarize students with the contributions made by feminists to the field of political theory and to provide students with the basic tools with which to read, understand, critique and write in acknowledgement of these contributions.
- 44.405 Development of Political Thought (3) - A chronological survey from the ancient Greeks to the present. Examines the ideas of seminal political thinkers as they grapple with perennial problems.
- 44.409 American Political Thought (3) - Analyzes the relationship of American political thought to modern political theory. Traditional models are used in a historical, chronological way but are reworked to show their relation and relevance to contemporary actions and issues. Covers the main ideas of the leading political thinkers in America from the colonial period to the present.
- 44.437 Public Administration Applications (3) - Examines major theories of public management and their application in the workplace to enhance productivity. Uses readings, cases and simulations.
- 44.438 Public Personnel Administration (3) - Examines public service as a career, the personnel needs of national, state and local governments; civil service law, personnel systems; collective bargaining in the public sector and current problems in the public service.
- 44.440 The President and Congress (3) - Reviews presidential and congressional politics, public policy-making roles, executive-legislative relationships, constitutional issues. Explores the constitutional limitations, citizen expectations and myths surrounding these institutions.
- 44.446 Constitutional Law I (3) - Analyzes the evolution, structure and function of the Supreme Court, concentrating on a case study approach of the court's interpretations of the powers of the president, Congress and federal-state relationships. Offered fall semester only.
- 44.447 Constitutional Law II (3) - Studies the decisions of the Supreme Court as they are related to the individual and the government, concentrating on nationalization of the Bill of Rights, rights of persons accused of crimes, equal protection and voting rights. Offered spring semester only.
- 44.448 Judicial Process (3) - Studies policy-making by the federal courts, primarily the Supreme Court. Analyzes nature of the policy-making function as well as the impact of policy-making on American society.
- 44.452 State and Local Government and Politics (3) - Presents a description and analysis of state and local legislatures, executives and judiciaries; the myths and realities of state and local politics; intergovernmental relations; current policies and problems. Offered fall semester only.
- 44.456 Public Policy (3) - Studies the institutional and political context of policy formation and implementation; the process for designing and administering government programs; and the techniques of analysis and evaluation that are or could be employed in formulating policy objectives, choosing from among alternatives and assessing performance. The approach is pragmatic, applied and interdisciplinary.
- 44.458 U.S. Foreign Policy (3) - Analyzes the substance, methods and purposes of U.S. foreign policy, including the determinants of policy, policymaking machinery and implementation matters.
- 44.464 Government and Politics of Ireland (3) - Surveys historic, social, cultural and religious developments in Ireland with concentration on a study of the government and politics of Northern Ireland and the Irish Republic. Examines contemporary literature, drama, music and art.
- 44.487 International Law and Organizations (3) - Examines the nature of international law and politics and surveys basic issues in contemporary international law. The course also examines the development of international organizations and selected issues.
- 44.490 Independent Study in Political Science (3) - Provides for individualized reading, research and reporting under conditions of minimal supervision. Projects must have departmental approval and be under way by the end of the first week of a session.
- 44.492 Seminar in Government and Politics (3) - Examines problems in government and politics in an attempt to review and unify theories and methods of political science. Emphasizes individual research projects.
- 44.497 Internship in Political Science (1-15) - Provides for on-site work experience and training designed to give an opportunity to apply the theoretical and descriptive knowledge acquired in the classroom. The student is supervised by an instructor and an on-site person. A paper is required.

## **SOC (45) Sociology, Social Work and Criminal Justice**

Administered by Department of Sociology, Social Work and





- Prerequisites: 45.211, 45.260 or consent of the instructor.
- 45.467 Population Problems (3) - Studies human population, its major theories, distributions composition, changes and future developments of population and impacts of population problems on society as influenced by vital processes. Prerequisite: 45.211.
- 45.468 Social Service Planning (3) - Provides an advanced consideration of the social context of the development of social policy, planning and implementation of social and/or human services at federal, state and local levels of organization. A critical analysis of the social effects of social policy, planning and services on people in a service-oriented, post-industrial society.
- 45.470 Senior Seminar (3) - Provides for individual research projects and reports with-in selected areas of interest such as the family, criminology, social services and special populations. Usually offered in the spring semester. Prerequisites: Senior status; 18 semester hours of sociology and social work; and consent of the instructor .
- 45.471 Independent Study in Sociology (3) - Allows student to pursue individualized instruction in-depth with a faculty member in a specific area of the field not covered in current courses. Prerequisites: 45.211 and consent of instructor, chairperson and members of the department.
- 45.474 Contemporary Environmental Issues (3) - Examines some major human problems that lead to environmental deterioration, particularly water, air and noise pollution, energy and other resource depletion and increasing population density. Prerequisite: 45.211.
- 45.477 Community Land Use Planning (3) - Introduces the community planning process and the theoretical perspectives relevant to community land use planning. Examines selected substantive planning problem areas in the local community. Students formulate, develop and present a community land use plan. Prerequisite: 45.211.
- 45.478 Sociology of Work (3) - Presents a sociological examination of work and the milieu of the worker. Studies formal and informal work organizations, job satisfaction and dissatisfaction, structure and organization of industrial and post-industrial societies and relationship between work organizations within communities and society. Prerequisite: 45.211.
- 45.490 Sociology of Aging (3) - Studies aging, its major theoretical themes, patterns of living, socio-psychological and cultural consequences of aging. Examines the contemporary issues, problems and programs of the aging. Prerequisite: 45.211 or consent of instructor. Offered in spring semester only.
- 45.495 Criminal Justice Internship (1-15) - An on-the-job apprenticeship in which students are exposed to the responsibilities, skills and activities necessary to accomplish jobs in criminal justice agencies, including public and private, local, state and federal, investigatory and correctional agencies. Prerequisite: 45.244.
- 45.496 Sociology Internship Program (1-15) - Designed primarily for the junior or senior working in a specific institutional field and/or college-approved, off-campus activities related to student's chosen professional field. Prerequisites: Consent of the instructor and department chairperson.
- 45.497 Social work Internship (10-15) - Provides the social work major with the opportunity to integrate and apply knowledge, theory and understanding extracted from the foundation courses. The student engages in supervised, direct service activities to develop competency as professional generalist social work practitioner Prerequisites: 45.133, 45.297, 45.255, 45.260, 45.215, 45.334, 45.450, 45.452 and 45.453.
- 45.498 Integrative Seminar in Social Work and Social Welfare (3) - Taken concurrently with 45.497 for integration of theory and practice. Internship work issues and assignments are discussed and evaluated in relation to relevant research and to the sixteen program objectives and corresponding seven internship course objectives. Prerequisites: 45.133, 45.297, 45.255, 45.260, 45.215, 45.334, 45.450, 45.452 and 45.453.
- 45.500 Sociology of Mass Communication (3) - In-depth discussion of cognitive and behavioral effects of mass media, especially television, on audiences, the social structure of communications industry, particularly its influence on media content and the political use of mass media. Students critique the latest research articles in the field.
- 45.511 Social Institutions (3) - Sociological examination of major institutions in the United States cross-culturally compared with those in other societies. Specific institutions selected depending on the interest of students and faculty.
- 45.513 Adolescents in American Society (3) - Studies the role of adolescents in contemporary U.S. society with special emphasis on the adolescent's social interactions in groups and institutions.
- 45.523 The Contemporary American Community (3) - An advanced examination of the social dynamics of community life, its institutions, organizations, and people within the context of the development of post-industrial society.
- 45.525 Current Social Issues (3) - Analyzes current social issues and solutions offered to solve them. Explores issues and solutions within the broad framework of the social sciences and specific framework of sociological and anthropological data.
- 45.578 Sociology of Work (3) - Focuses on structure and organization of industrial and post-industrial societies and the relationship between work organizations within communities and society. Presents a sociological examination of work and the milieu of the worker. Course focuses on formal and informal work organizations, worker job satisfaction, and dissatisfaction.

## ANT (46) Anthropology

Administered by Department of Anthropology

- 46.101 Introduction to Anthropology (3) - A beginning course for students with no background in anthropology. Provides an overview of peoples and cultures of the world today and of the past as well as the fossil evidence for human evolution. Topics may include living primates, magic and religion and kinship, marriage and sex roles. Not for students who have taken 46.200, 46.210 or 46.220.
- 46.102 Anthropology and World Problems (3) - Explores the origins of global problems and evaluates the variety of cultural solutions to those problems. Investigates cultural values and solutions of tribal peoples holistically and compares them to those of industrialized nations in terms of their consequences and implications. Approved as a diversity course.
- 46.200 Principles of Cultural Anthropology (3) - Provides a cross-cultural study of all human behaviors in contemporary cultures. Topics surveyed include socialization; language; sex, age and kinship roles; religion and magic; marriage and the family; political and economic behavior; cultural change; and the arts. Anthropological methodology and the concept of culture also are stressed. Approved as a diversity course.
- 46.210 Prehistoric Archaeology (3) - Provides a worldwide examination of human prehistory from the origins of humankind to the development of early writing. Focuses on regional differences and similarities in key evolutionary transitions including sedentary lifeways, urban origins and the rise of states. Field methods are also discussed.
- 46.220 Human Origins (3) - Studies the emergence and development of humans, the biological basis of human culture and society and the origin of the social units of fossil humans. A review of non-human primates and their behavior is also addressed.
- 46.260 Men and Women: An Anthropological Perspective (3) - A cross-cultural and evolutionary perspective on sex role behavior in past and contemporary cultures. Examines sex roles in nonhuman primates and humans. Examines sex roles in hunting and gathering, horticultural, pastoralist, peasant and other preindustrial societies are described as well as sex roles in modern industrial societies. Covers genetic and environmental theories of sex role behavior. Prerequisite: 3 semester hours of anthropology. Approved as a diversity course.
- 46.300 Archaeological Method and Theory (3) - Explores the modern theoretical foundations of archaeology. Students read and discuss original contributions to the field and learn methods in preparation for actual fieldwork. Prerequisite: 46.210 or consent of the instructor.
- 46.301 Field Archaeology (3-6) - Provides field investigation of various prehistoric cultures in northeastern United States. Students learn excavation and recording techniques, visit important sites during field trips and become part of a unique community that studies our past.
- 46.310 Aztecs and Mayans (3) - Surveys the prehistoric cultures of Mexico and Central America. Emphasis on the development of Aztec and Mayan civilizations. Approved as a diversity course.
- 46.311 Archaeology of Northeastern North America (3) - Surveys the prehistoric cultures of the area from arrival of the first inhabitants through early historic times. Provides a laboratory for the study of broader issues of socio-cultural processes. Prerequisite: 46.210 or consent of the instructor.
- 46.312 South American Archaeology (3) - A survey of prehistoric cultures of South America. Emphasizes the civilizations of the Andean zone and the role played by the Amazonian region in the development of Andean Cultures. Prerequisites: 46.101 or 46.200 or 46.210 or consent of the instructor. Approved as a diversity course.
- 46.320 Contemporary World Cultures (3) - Presents a comparative analysis of selected non-European societies in contrasting cultural and natural areas. Indicates stresses on the natural and social environment; national character; religion and world view; and literary, artistic and musical expression. Approved as a diversity course.
- 46.333 Ethnic Identity in the United States (3) - Explores the varieties of ethnic experience in the United States. A uniquely anthropological perspective is utilized to give students a sense of how a cultural-ethnic identity is formed and maintained in our society. Special attention paid to Italians and Latinos (including Puerto Ricans) as examples of extremely different immigrant experiences. Prerequisite: 46.200. Approved as a diversity course.
- 46.340 Native North America (3) - Surveys native cultures of North America in prehistoric and early historic periods with emphasis placed on issues facing today's Native American population. Prerequisites: 46.200, 46.210, 46.220 or consent of the instructor. Approved as a diversity course.
- 46.350 Medical Anthropology (3) - Studies of cross-cultural concepts of health, illness and curing as well as health care delivery in industrialized cultures. Includes the topics of divination and diagnosis, sorcery and witchcraft in healing, public health and preventive medicine, alcoholism and drug use and the medical knowledge of tribal and peasant societies. Approved as a diversity course.
- 46.360 Pseudoscience (3) - Sharpens critical thinking skills and deepens understanding of human belief systems and ethics by examining how science operates and evaluating extraordinary ideas that claim to be scientific. Investigates scientific-creationism, ESP, UFOs, fantastic archeology, dowsing and others.
- 46.370 Indigenous Cultures of Modern Mexico (3) - Presents an introduction to the indigenous cultures of modern Mexico, including Nahuatl, Otomi, Purépecha, Huastec, Zapotec, Mixtec and Maya. Focus is both historical and contemporary. Treats such subjects as religion, sacred and secular rituals, customs, folk art, sociopolitical organization, economics and culture change from an anthropological perspective. Prerequisite: 46.101 or 46.102 or 46.200 or 46.310 or 46.333 or 46.340 or consent of instructor.
- 46.385 Anthropology Research and Writing Skills (3) - Familiarizes students with information sources in anthro-





may be repeated with change in topic. Prerequisites: 48.101 and consent of the instructor.

48.436 Theories of Personality (3) - A critical study of theories explaining development, structure and dynamics of personality. Considers personality from psychoanalytic, social, trait, self and learning points of view. Prerequisite: 48.101, 48.160, 48.281 (minimum grade of C in each), 48.282.

48.439 Introduction to Clinical Psychology (3) - Surveys clinical psychology and the role of the clinical psychologist in community and hospital mental health programs, clinical assessment and diagnosis. Examines concepts in and models of psychotherapy. Prerequisites: 48.101, 48.335 or 48.436 or consent of the instructor.

48.451 Laboratory Training in Group Processes (3) - Offers on-going experience on topics including norm-setting, leadership, problem solving, role playing cooperation/competition and decision making. Class size limited to 20 students. Prerequisite: 48.101 and consent of the instructor. Offered fall semester only.

48.453 Organizational Psychology (3) - Describes the application of psychological theory and research to the study of industrial, business, profit and nonprofit service, military and governmental organizations. Emphasizes the interaction of individual perceptions, group dynamics and organizational climate and strategies to maximize the satisfaction and effectiveness of each component within and between complex organizations. Prerequisite: 48.101, 48.253 or consent of instructor. Offered spring semester only.

48.464 Advanced Experimental Design (Spring, odd-numbered years) (3) - Presents an advanced consideration of the planning, conduct and evaluation of research in the behavioral and biological sciences, employing parametric and nonparametric statistics. Emphasizes inferential statistics, design, analysis, interpretation and computer utilization. Prerequisites: 48.101, 48.160, 48.281, 48.282 or consent of the instructor.

48.466 Independent Study in Psychology (3) - Studies a topic via either review and research of technical psychological literature or empirical manipulation of variables in the field or laboratory under supervision of a psychology faculty member. Requires written report on results of study. Prerequisites: Consent of the instructor, departmental approval and approval by the dean of the College of Liberal Arts.

48.476 Principles of Behavior Modification (3) - Studies the application of learning principles to change behavior in both individual and group settings. Prerequisites: 48.101 or consent of the instructor.

48.497 Practicum in Psychology (3-15) - Provides application of psychological knowledge through study, observation and practice in a community. May be repeated for a total of 15 semester hours. Prerequisites: 90 credit hours and completion of 48.101, 48.160, 48.281 (minimum grade of C in each) and consent of the instructor.

48.576 Theories of Human Learning (3) - Studies the historical and contemporary learning systems and models

which yield principles for practical application.

48.577 Principles of Behavior Modification (3) - Studies the application of learning principles to change behavior in both individual and group settings. Prerequisites: 48.101 or consent of the instructor.

## BIO (50) Biology

Administered by Department of Biological and Allied Health Sciences

50.100 Cells, Genes and Molecules (3) - General principles of biology studied from the cellular, genetic and molecular levels. Discusses how modern techniques in biology shape and affect our lives. Not applicable to biology major. Three hours of lecture per week.

50.101 Human Biology (3) - Presents major concepts and principles of biology relating to humans. Not applicable to biology major.

50.102 Ecology and Evolution (3) - Studies biology from the ecological, evolutionary and behavioral perspective with emphasis on humankind. Not applicable to biology major.

50.107 Medical Terminology (1) - Studies roots, prefixes and suffixes of medical terms via programmed instruction. Recommended for students in the health sciences. Pass/fail credit only. Not applicable to biology major.

50.114 Concepts in Biology I (4) - Introductory course provides a framework of key biological concepts and unifying themes. Topics include the nature and process of science, the unity and diversity of living things, the chemical basis of life, cell structure and function, principles of inheritance and animal form and function. Laboratory work emphasizes application of biological principles, experimental design, observation, data collection, analysis and interpretation. Three hours lecture/three hours laboratory per week.

50.115 Concepts in Biology II (4) - Continuation of Concepts in Biology I. Introductory course that presents key biological concepts in an evolutionary framework. Topics include: plant form and function, population, community and ecosystem ecology, evolution, systematics and a survey of key phyla of plants, animals and microorganisms. Laboratory work emphasizes application of biological principles, experimental design, observation, data collection, analysis and interpretation as well as written and oral communication skills. Three hours of lecture/three hours of laboratory per week. Prerequisite: 50.114 or permission of the instructor.

50.173 Anatomy and Physiology I (4) - An introductory course integrating the structure and function of the human body. Covers fundamental principles of anatomy and physiology, the chemical basis of life, cell structure and function, tissues, integumentary system, skeletal system, muscular system, nervous system and special senses. Three hours of lecture/3 hours of laboratory per week. Not applicable to biology major.

50.174 Anatomy and Physiology II (4) - Introductory course integrating the structure and function of the human

body. Covers blood and defense mechanisms, cardiovascular system, lymphatic system, respiratory system, digestive system, metabolism, nutrition, urinary system, fluid and electrolyte balance, endocrine system, reproductive system, growth and development and human genetics. Three hours lecture/3 hours laboratory per week. Prerequisite: 50.173 or consent of the instructor. Not applicable to biology major.

50.200 Dendrology (Summer) (3) - Covers the basic principles of dendrology: the identification, biology and economic significance of trees and shrubs. Emphasis is placed on tree species of eastern North American forests. Two hours of lecture and 10 hours of laboratory per week. Summer session only. Prerequisite: 50.115.

50.205 Introduction to Nutrition (3) - A foundation of nutritional concepts and practices that can be applied to personal lives and incorporated into careers. Concepts include nutritional requirements for optimal health and performance throughout the life span, making food choices in the marketplace, analyzing nutritional information in the media and controversial issues in nutrition and health. Not applicable to biology major.

50.211 Invertebrate Zoology (3) - Studies the principal phyla of invertebrate animals in relation to their anatomy, classification and behaviors in the ecosystems in which they participate. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Three hours lecture/2 hours laboratory per week. Prerequisite : 50.115.

50.212 Vertebrate Zoology (3) - Studies the biology of vertebrate animals, emphasizing natural history, physiology, morphology, taxonomy and behavior. Reviews evolutionary and ecological aspects of each class. Includes laboratory work with living and preserved specimens to familiarize students with representative individuals of the major classes of this group. Field trip component at the Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.115.

50.222 Comparative Biology of Plants (3) - Provides a phylogenetic study of land plants with emphasis on their development, structure, reproduction and selected ecological and paleobotanical aspects. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.115.

50.231 Biology of Aging (3) - The biological mechanisms of the aging process are discussed with special emphasis on these processes in humans. Discussions include studies of aging at the molecular, cellular, systems and organism levels of organizations. Three hours lecture per week. Not applicable to biology major.

50.233 Human Genetics (3) - Explores the principles of human genetics and their application to problems in anthropology, biology, medicine, psychology, sociology and special education. Three hours of lecture/discussion per week. Prerequisite: 50.100, 50.101, 50.114 or consent of the instructor.

50.240 Introductory Microbiology (3) - Presents elementary aspects of morphology, metabolism and cultivation of

bacteria, viruses and other microorganisms with consideration of their relationship to public health and various industrial processes. Three hours lecture and 2 hours laboratory per week. Not applicable to biology major.

50.242 Biology of Microorganisms (4) - Introduces the fundamental principles of nomenclature, classification, microscopy, cytology and anatomy, cultivation, growth, metabolism and genetics of the microbial world. Microbial interrelationships and control are integrated into a systematic approach to classical microbiology as it relates to humans and the environment. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.115 and 52.115.

50.252 Field Zoology (Summer) (3) - Studies animals (mainly vertebrates) with emphasis on field observation and recognition and some collections. Also the class visits various field zoologists' study sites to learn about this profession. Field trip to Wallops Island at additional student cost. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.115 or consent of the instructor.

50.253 Freshwater Biology (Summer) (3) - Emphasizes the chemical, physical and biological aspects of freshwater environments. Two hours of lecture/3 hours of laboratory per week. Prerequisites: 50.115 or consent of the instructor.

50.254 Social Implications of Biology (3) - Explores the societal implications of current thought in biology. Addresses values, ethics and responsible decision making. Three hours of lecture and discussion per week. Not applicable to biology major.

50.263 Field Botany (Summer) (3) - Field identification of local vascular plants, principles of plant systematics, ecology and evolution. Two hours of lecture/3 hours laboratory per week. Prerequisite: 50.115 or consent of the instructor.

50.271 Cell Biology (4) - Examines the structure and function of the cell and its organelles. Emphasis on general principles and processes by which all cells function. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.115 and 52.115 or 52.118.

50.275 Drugs in America (3) - Examines the basic mechanism of drug action for legal and illegal, prescription and over the counter (OTC) medications. Introduction covers terminology, drug sources, federal laws and principles of drug action. More specific mechanisms will be discussed for the following categories: narcotic analgesics, stimulants, barbituates, tranquilizers, marijuana, hallucinogens, antioviulatory agentes, OTC pain relievers, other common OTC medications and antibiotics. Not applicable to the biology major.

50.331 Embryology (3) - Reviews the patterns, processes and principles of animal development. Laboratory studies emphasize descriptive embryology of a number of representative vertebrates with emphasis on amphibian, avian and mammalian development. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/

- 3 hours of laboratory per week. Prerequisite: 50.115 or consent of the instructor.
- 50.332 Genetics (3) - Addresses mechanisms of heredity in animals and plants; Mendelian inheritance, linkage, probability, crossing over, chromosomal modifications, nucleic acids and gene action. Three hours of lecture/2 hours of laboratory per week. Laboratory hours will vary. Prerequisite: 50.271.
- 50.333 Molecular Biology (3) - Investigates the practical and theoretical aspects of molecular biology and gives students an opportunity to explore otogenic and developmental problems from a molecular perspective. Topics include information processing from DNA to proteins, regulation of gene expression, DNA mutability and repair and genetic engineering. Two hours lecture/discussion, three hours of lab per week. Prerequisites: 50.271, 50.242 and 52.131.
- 50.342 Medical Bacteriology (4) - Provides a study of bacteria capable of causing disease in humans. Emphasizes laboratory aspects of bacterial disease but includes pathogenicity, identification, diagnosis, treatment and prevention. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.242 and 50.271.
- 50.343 Immunology (3) - Introduction to components and functions of human immune system; application of immunology to infectious disease, blood transfusion organ transplantation and cancer; consideration of conditions involving the immune system such as immunodeficiencies (AIDS), allergies and autoimmune diseases. Prerequisites: 50.271; and a background in genetics organic/biochemistry and/or infectious diseases recommended.
- 50.350 Plant Pathology (3) - Examines the nature of vascular plant diseases, the biology of plant pathogens and the impact of diseases on human affairs. Lecture stresses principles of plant pathology: disease and pathogen classification, modes of pathogenesis, host response to disease and disease control. Laboratory stresses identification of plant pathogens and disease symptoms, histology of diseased tissues and research techniques. Three hours of lecture/2 hours of laboratory per week. Prerequisites: 50.242 and 50.271; or consent of the instructor.
- 50.351 Ecology (3) - Investigates the interactions of organisms and their environment. Includes behavior, population dynamics, community interactions and ecosystem function. Field-based labs are an integral part of the course. Two hours lecture/3 hours laboratory per week. Prerequisite: 50.115 or consent of the instructor.
- 50.361 Comparative Vertebrate Anatomy (3) - Presents a comparative study of the chordates emphasizing the vertebrate classes. Attention given to structure, morphogenesis, functional adaptations and evolutionary trends. Laboratory emphasis is placed on the lamprey, shark and cat. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.115 or consent of the instructor.
- 50.364 Vertebrate Histology (3) - Studies the structure and function of vertebrate cells and tissues from various body systems. Laboratory studies include the use of prepared microscope slides and color photomicrographs. Two hours lecture/3 hours laboratory per week. Prerequisite: 50.271 or consent of instructor.
- 50.366 Anatomy and Physiology: Head, Neck and Thorax (Spring) (3) - Focuses on the anatomy, physiology and development of the head, neck and thorax. Emphasizes the organ systems that relate to the hearing and speech mechanisms. Three hours lecture/2 hours laboratory per week. Preference given to students in communication disorders. Not applicable to biology major.
- 50.380 Biology Seminar (1) - Emphasizes preparation and presentation of biological topics in both oral and written formats. Prerequisite: junior standing or minimum of 64 semester hours completed.
- 50.390 Undergraduate Research in Biology I (1-3) - Acquaints students with techniques of scientific research, data collection and analysis by engaging in a program of research with the aid of a faculty member. Research culminates in a scholarly paper written by the student that presents findings of the laboratory or field investigation in a form suitable for publication. Refer to section on cooperative education, internship and independent study Prerequisite: junior standing.
- 50.391 Undergraduate Research in Biology II (3) - Continuation of 50.390.
- 50.411 Radiation Biology (3) - Studies effects of radiation on living organisms and nuclear structure; studies fundamental properties of radiation, including physical, chemical and genetic effects on plants and animals from cells to whole organisms; studies application of radiochemicals in biological studies. Minimum of 4 hours per week including laboratory. Prerequisite: 50.233 or 50.332, 53.141 or consent of the instructor.
- 50.430 Evolution (3) - Studies the major concerns of the theory of evolution and contributions toward their solutions made by genetics, paleontology, systematics and ecology. Three hours of lecture per week. Prerequisites: 50.332 or 50.351 or permission of the instructor.
- 50.432 Microbial and Molecular Genetics (3) - A study of macromolecules, macromolecular complexes, protein synthesis and gene regulation using viruses, bacteria and lower eukaryotes. Topics include DNA/chromosome structure, genetic recombination, plasmids, transposons, recombinant DNA and genetic analysis. Three hours of lecture and two hours of laboratory per week. The laboratory hours will vary. Prerequisites: Two of the following: 50.242, 50.332, 52.341; or permission of instructor.
- 50.441 Cytogenetics (3) - Examines structure and behavior of chromosomes and their effects on development. Describes human genetic syndromes and the effects of chromosome abnormalities. Explores relationships between chromosomes, oncogenes and cancer. Laboratory studies include cell culture methods, microscopic techniques and karyotype preparation. Two hours of lecture/2 hours of laboratory per week. Prerequisites: 50.233 or 50.332 and 50.271; or consent of the instructor.

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- 50.442 Virology of Mammals (3) - Introduces viral structure, classification, replication, genetics and pathogenesis. Studies entail the diagnosis, prevention and treatment of viral infection and families of viruses that cause disease in humans and other mammals. Includes such current topics as AIDS and tumor virology. Prerequisites: At least one course from 50.332, 50.342, 50.343, Chemistry 52.341; background in microbiology recommended.
- 50.444 Plant and Animal Tissue Culture (1) - Explores the practical and theoretical aspects of plant and animal tissue culture. Primary focus will be on the development of laboratory skills to a level sufficient to enable the student to gain an entry-level position in a cell culture laboratory. Topics include: regeneration of plants from tissue culture, hybridoma technology, animal tissues culture techniques, establishing primary cell cultures and maintenance and storage of cell cultures. One hour of lecture/discussion per week, three hours lab. Intended for biotechnology students. Prerequisites: 50.271; 52.230 or 52.231
- 50.450 Mycology (3) - A critical survey of the kingdom Fungi, with emphasis on the Ascomycota, Basidiomycota and Deuteromycota. Lectures cover the topics of morphology, physiology, biochemistry, cytology, genetics, systematics, ecology and evolution. Laboratory stresses comparative morphology of higher fungi, laboratory techniques and field mycology. Two hours of lecture/3 hours of laboratory per week. Prerequisites: 50.271; one course in genetics recommended; or consent of the instructor.
- 50.451 Conservation Biology (3) - Presents the science of preserving biodiversity and sustaining the earth. Draws on and synthesizes information from the fields of ecology, evolution, genetics, philosophy, economics, sociology and political science. Emphasis on the development of strategies for preserving populations, species, biological communities and entire ecosystems in the face of growing human populations and their impact on the environment. Brings scientific principles and theory to bear on problems of management for preserving the richness of life on earth. Three hours of seminar per week. Prerequisites: 50.115; 50.351; 41.105 or consent of the instructor.
- 50.542 Limnology (summer) (3) - Chemical, biological and physical aspects of freshwater lakes, ponds and streams. Includes laboratory and field investigations. Prerequisite: 50.351.
- 50.453 Neotropical Biology (3) - Studies the biology of the neotropics with an emphasis on the Central or South American neotropics. Students will deliver a seminar, write a term paper, participate in class discussions, turn in a field trip notebook and study selected readings in neotropical biology. A one to two week trip to the neotropics is required and students will incur travel expenses exclusive of tuition and fees of approximately \$2,000. Prerequisites: 50.115; 50.351; 41.105 or consent of the instructor.
- 50.455 Environmental Microbiology (3) - Studies the interactions of microbes with plants and animals and with each other in natural air, water and soil habitats. The roles of microbes in biogeochemical cycling, pollution and waste management are reviewed. Lab experience in sampling, counting and monitoring microbes in the environment. Four hours per week. Additional time may be required. Prerequisite: 50.242 or consent of instructor.
- 50.457 Entomology (3) - Studies the physiology, morphology, behavior, classification and general biology of the insects. A collecting period provides an opportunity for students to collect, mount and properly display insects for study. Taxonomic emphasis limited to order and family. Equivalent to 5 hours per week including laboratory.
- 50.459 Ornithology (3) - Studies the biology of birds including bird identification in the field by song and sight, anatomy, physiology, behavior, ecology and other aspects. Two hours of lecture/3 hours of laboratory per week. Some study off-campus may be required. The field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Prerequisite: 50.115 or consent of the instructor.
- 50.460 Population Biology (3) - Presents selected themes in the biology of animal, plant and fungal populations. Topics include: population structure and dynamics, population genetics, population ecology and speciation. Fundamental principles and current models and hypotheses will be stressed, along with treatments of research techniques, computer modeling and potential for future research. Three hours of lecture/discussion per week.
- 50.461 Animal Behavior (3) - In depth introduction to modern ethology. Emphasizes current models of animal behavior and theoretical foundations of ethology. Research and project oriented. Students may incur additional cost due to the field trip component at Marine Science Consortium, Wallops Island, Va. Three hours of lecture/2 hours of laboratory per week.
- 50.462 Plant Anatomy (3) - Outlines recent concepts of plant anatomy and historical consideration of classical researchers. Reviews the structure, function, growth and morphogenesis of the vascular plants. Addresses composition and growth of meristems and the phenomena of subsequent tissue differentiation. Describes anatomical organization by developmental and comparative methods in order to explain important cell, tissue and organ relationships. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.115.
- 50.470 Medical Parasitology (3) - Presents life history, physiology, taxonomy and morphology of parasites of medical importance to humankind. Special attention given to clinical aspects such as pathology, symptomology, diagnosis, prevention and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, the proper handling of specimens and methods of professional patient interviewing. Five hours per week. Prerequisite: 52.230 or 52.231 or 52.116 or consent of the instructor. Completion of additional coursework in biology recommended.

- 50.472 Animal Cell Physiology (3) - Examines the principles of physics and chemistry as they relate to biological processes of animal cells. Relates the structure and properties of certain organic molecules to the structure of biological membranes and the functions of different organelles. Emphasizes the role of membrane transport processes to the maintenance of the cell's physiochemical environment. Uses intermediary metabolism and bioenergetics to present the role of chemical messengers in the regulation of cell processes. Prerequisites: 52.230 or 52.231 or 52.116 or permission of the instructor.
- 50.473 Systemic Physiology (3) - Examines how normal body function is maintained by the precise control and integration of the specialized activities of the various organ systems. Three hours of lecture/ 2 hours of laboratory per week. Prerequisites: 50.271, 52.116, 50.472 or 50.474 or 50.174.
- 50.474 Vertebrate Systems Physiology (3) - Studies the major organ systems and how they work together to maintain body conditions compatible with life. Uses human systems to explain function, but includes examples from other vertebrates to broaden students' understanding of the variety of mechanisms used to maintain homeostasis. Mechanisms by which the systems' functions are integrated in the whole organism are emphasized. Three hours lecture and discussion per week. Prerequisites: 52.230 or 52.231, or permission of the instructor. Competence in college algebra.
- 50.476 Neurophysiology (3) - Examines normal physiology of the nervous and skeletal muscular systems; specifically studying cellular neurophysiology, muscle contraction, sensory physiology, motor control and their integration. Three hours lecture and discussion per week. Background in mammalian or systemic physiology, biochemistry and anatomy recommended. Prerequisites: 50.472, 50.473 or 50.474.
- 50.477 Plant Physiology (3) - An introduction to plant function including discussions of water relations, carbohydrate metabolism and translocation, photosynthesis, mineral nutrition, plant growth hormones and growth and development. Three hours lecture per week. Prerequisites: 50.230 or 52.231 or permission of the instructor.
- 50.478 Microbial Physiology (3) - Studies life processes of microorganisms, including how they maintain homeostasis in response to changing environmental conditions. Examines general similarities as well as significant differences between microbial groups. Covers principles of nutrition and growth, substrate uptake and transport systems. Discussion of energy-yielding metabolism in microorganisms will highlight the diversity of systems. Outlines precursor and macromolecule synthetic pathways and their regulation, with emphasis on industrial applications. Three hours of lecture per week. Prerequisites: 50.242, 50.271, 52.116.
- 50.479 Integrated Physiology Laboratory (1) - Provides hands-on investigations of physiological principles across taxonomic groups and all organizational levels. Investigates evolutionary adaptations to various physiological problems and reinforces awareness of the unity of living systems. Emphasizes the application of the scientific method and provides opportunities for independent investigation. Four hours laboratory per week, including one hour discussion. Offered each semester. Prerequisites: 50.271, 52.116, and 52.230 or 52.231 or permission of the instructor. Students need an understanding of college algebra. Pre or Co-requisite: 50.472, 50.474, 50.478, or 50.477.
- 50.481 Senior Biology Seminar (1) - Addresses the practice of critical reading and of the scientific literature in biology, preparing written and oral analyses of original research, and engaging in critical discussion. Prerequisite: senior standing in biology.
- 50.484 Methods in Biotechnology (3) - An investigation-based course in which students undertake a project of their own design employing methods used in biotechnology. Students will be required to submit project proposals prior to the semester that they enroll. Students will be allowed to register for the course on approval of the project. Students will meet as a research group for three hours/week with the instructor. Prerequisites: 50.333 or 52.422.
- 50.490 Internship in Biology and Biology Research (3-15) - A work-study program open only to juniors and seniors majoring in biology and allied health sciences. No more than 15 semester hours in Cooperative Education and/or internship may be taken. .
- 50.493 Honors Independent Study I - Biological Research (3) - Consists of a laboratory or field investigation of a particular problem or topic in biology. The study will be conducted under the supervision of a biology faculty member. The course is open to students enrolled in the B.A. and B.S. in biology degree programs. Refer to section on cooperative education, internship and independent study. Prerequisite: 50.380 and admission to the Honors Program.
- 50.494 Honors Independent Study II - Biological Research (3) - Consists of a laboratory or field investigation of a selected problem or topic in biology. The study will be conducted under the supervision of a biology faculty member. This course completes the requirements for Biology Honors research. Prerequisite: 50.493.
- 50.530 Evolution (3) - Examines major events in the history of life on Earth. Examines theoretical models of evolutionary processes and the evidence of evolutionary change from studies of fossil and extant species. Three hours lecture per week.
- 50.531 Developmental Biology (3) - Study of progressive changes and transformations that occur during the existence of various model organisms. Morphogenesis, differentiation, metabolism, and genetic control are discussed. Laboratory studies use amphibian eggs collected locally and other selected embryologic and microscopic material. Four hours per week. Offered in spring semester.
- 50.532 Microbial and Molecular Genetics (3) - A study of macromolecules, macromolecular complexes, protein synthesis and gene regulation using viruses, bacteria and

lower eukaryotes. Topics include DNA/chromosome structure, genetic recombination, plasmids, transposons, recombinant DNA and genetic analysis. Three hours of lecture and two hours of laboratory per week. The laboratory hours will vary. Prerequisites: Admission to the M.S. or M.Ed. Program in Biology, or permission of instructor.

50.550 Mycology (3) - A critical survey of the kingdom Fungi with emphasis on the Ascomycota, Basidiomycota, and Deuteromycota. Lectures cover morphology, physiology, biochemistry, cytology, genetics, systematics, ecology, and evolution. Laboratory sessions stress comparative morphology of higher fungi, laboratory techniques, and field mycology. Two hours lecture/3 hours laboratory per week.

50.551 Conservation Biology (3) - Presents the science of preserving biodiversity and sustaining the Earth. Draws on and synthesizes information from the fields of ecology, evolution, genetics, philosophy, economics, sociology and political science. Emphasis on the development of strategies for preserving populations, species, biological communities and entire ecosystems in the face of growing human populations and our impact on the environment. Brings scientific principles and theory to the problems of management for preserving the richness of life on Earth. Three hours of seminar per week.

50.552 Limnology (summer) (3) - Chemical, biological and physical aspects of freshwater lakes, ponds and streams. Includes laboratory and field investigations. Prerequisite: 50.351.

50.553 Neotropical Biology (3) - Studies the biology of the neotropics. Students will deliver a seminar, write a term paper, participate in class discussions, turn in a field trip notebook and study selected readings in neotropical biology. A one to two-week trip to the neotropics is a required part of this course, with travel expenses exclusive of tuition and fees of approximately \$2,000.

50.559 Ornithology (3) - Presents the biology of birds along with bird identification in the field and from museum collections along with a review of ornithological literature. Emphasis on bird vocalizations, behavior and morphology in making identifications. Students deliver a presentation on an ornithological topic and participate in class discussions. Field trips to study birds of the area also include an extended trip to an area such as Wallops Island, Va. Extra costs of approximately \$75 will be incurred for the extended trip. Two hours lecture, three hours laboratory per week. Off-campus field trips are required.

50.560 Population Biology (3) - Provides a rigorous treatment of the characteristics of natural populations of animals, plants and fungi. Introduces students to current concepts in speciation, ecological models of population structure and dynamics and principles of population genetics. Stresses current research, theoretical and computational mathematical models and current techniques in the study of populations. Additional time commitments and costs will be incurred for required extended off-campus field trips. Three hours of lecture/discussion per week.

50.561 Animal Behavior (3) - An in-depth introduction to modern behavioral biology, ecology and evolution. Emphasizes current models of animal behavior and theoretical foundations of ethology. Project oriented. Students master appropriate theory, familiarize themselves with appropriate literature and apply principles in project designed by the students under the direction of the professor. Additional time commitments and costs will be incurred for required off-campus field trips. Three hours of lecture discussion, two hours laboratory per week.

50.570 Medical Parasitology (3) - Presents life history, physiology, taxonomy, and morphology of parasites of medical importance to humankind. Special attention given to clinical aspects such as pathology, symptomology, diagnosis, prevention, and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, proper handling of specimens, and methods of professional patient interviewing.

50.571 Endocrinology (3) - Studies the individual glands of the endocrine system with respect to their development, morphology, function, regulation, and significance in integrating physiological activities of higher vertebrates. Three hours lecture per week.

50.572 Comparative Animal Physiology (3) - Compares higher vertebrate adaptations to various environments with respect to regulation of body fluid volume and composition, core temperature, and nitrogen metabolism. Four hours per week.

50.573 Systemic Physiology (4) - Examines how normal body function is maintained by the precise control and integration of the specialized activities of various organ systems. Three hours lecture, 3 hours laboratory per week.

50.575 Cell Physiology (3) - Explores cellular function in molecular terms. Topics include: membrane physiology, interactions between cells and their environment, aerobic respiration, photosynthesis, cytoplasmic membrane systems, cytoskeleton and cell motility, gene expression and its control, cellular reproduction, cell signalling and techniques in cell and molecular biology. Three hours lecture/discussion per week..

50.576 Neurophysiology (3) - Examines normal physiology of the nervous and skeletal muscular systems; specifically studying cellular neurophysiology, muscle contraction, sensory physiology, motor control and their integration. Three hours lecture and discussion per week. Background in mammalian or systemic physiology, biochemistry and anatomy recommended. Prerequisites: 50.474 or 50.573 or equivalent and knowledge of chemistry and electrical circuitry.

50.590 Current Topics in Biology (3) - Critically examines a specialized topic in biology in a lecture/seminar format. Topic varies each semester offered. May be repeated once, provided that the topic is different. Three hours of lecture/seminar per week.

50.591 Directed Study in Biology (3) - An independent investigation, conducted under the direction of a member of the Department of Biological and Allied Health

Sciences, in an area of biology in which the student has a particular interest. Student encouraged to identify a problem, employ an experimental design, and analyze collected data. Study of pertinent literature is required.

50.592 Master of Education Thesis (1-6) - Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of master of education in biology.

50.593 Master of Science Thesis (1-6) - Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of master of science in biology.

## ESS (51) Geology and Earth Science

Administered by Department of Geography and Geosciences

51.100 Environmental Geology (3) - Application of geologic knowledge to environmental concerns. Emphasizes energy, soil, mineral and water resources along with Earth processes that are hazardous to humans. An afternoon field trip with a nominal fee is required.

51.103 Dinosaurs (3) - Designed to use a single broad topic of current popular interest as the basis for exploration of important concepts and/or themes in Earth's history. Dinosaurs and their relatives will be used to illustrate origination and extinction of species through time as well as interaction of organisms with each other and the environment.

51.106 The Planets (3) - Introduces students to the origin, evolution and geology of the solar system, paying particular attention to the terrestrial planets and icy satellites of the outer planets. Emphasis on results returning from recent and current planetary missions.

51.107 Natural Disasters (3) - Principles of Earth's internal and external processes are explored through an examination of their manifestations as naturally-occurring disasters and the resultant impact on human life and property.

51.120 Physical Geology (3) - Studies the landscape in relation to the structure of the earth's crust; agents at work to change landforms; classification and interpretation of rocks. One semester hour optional lab; an afternoon field trip is required.

51.121 Physical Geology Laboratory (1) - Presents an introduction to the practice of fundamental geology laboratory techniques including qualitative and quantitative analysis. Two hours of laboratory per week. It is recommended that course be taken concurrently with 51.101.

51.130 Historical Geology (3) - Examines the evolution of earth and life on earth as interpreted from rock and fossil evidence; particular emphasis is on the geologic history of North America. One semester hour optional lab; afternoon field trip is required.

51.131 Historical Geology Laboratory (1) - Provides an in-

terpretation of Earth's history through the identification and evolution of the rock and fossil record and through the interpretation of geologic maps. Two laboratory hours per week. It is recommended that course be taken concurrently with 51.102.

51.255 Meteorology (3) - Studies the atmosphere via the use of gas laws and the underlying principles of atmospheric change. The field trip component incurs an additional cost to students of approximately \$20 for airfare.

51.259 Oceanography (3) - Provides an introduction to the geologic, chemical and physical aspects of the ocean basins. Emphasizes wave motion, topographic features, ocean basin structure, current circulation and methods of investigation. A weekend field trip is encouraged.

51.260 Earth Materials (4) - Explores the origin, occurrence and identification of the common materials and of igneous, sedimentary and metamorphic rocks, with emphasis on practical means of recognition. Three hours lecture, two hours laboratory per week. Prerequisite: 51.111.

51.261 Mineralogy (Fall) (4) - Reviews the origin, occurrence and identifying characteristics of common minerals. Stresses megascopic and microscopic techniques. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 and 51.111 or permission of the instructor.

51.262 Petrology (Spring) (4) - Presents megascopic and petrographic analysis and identification of rocks with emphasis on field occurrences and associations. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.261.

51.265 Geomorphology (Fall) (4) - Study of the origin of landforms with emphasis on the geologic processes and structures that generate the landforms and applications of landform analysis. Two-day weekend field trip is required. Three hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 or consent of instructor.

51.320 Remote Sensing of the Earth (3) - Studies the use of remote sensing technology to explore for, monitor and manage Earth's natural resources. Two hours of class, 2 hours of laboratory per week. Prerequisite: 53.112 or higher or consent of the instructor.

51.355 Synoptic Meteorology (3) - Presents observation and analysis of data for understanding and predicting the complexities of the atmosphere. Prerequisite: 51.255 or consent of instructor.

51.360 Introduction to Paleontology (4) - Introduces students to modern concepts and methods in paleobiology using examples from various groups of organisms important in the fossil record. Field trips and laboratory work are an integral part of this course. Prerequisite: 51.102, 51.112 or 50.211 or consent of the instructor.

51.369 Structural Geology (Spring) (4) - Analyzes rock deformation based upon the principles of rock mechanics and the utilization of data from field investigations. Three hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 or consent of instructor.

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- 51.370 Surface Hydrology (Fall) (3) - Study of water movement upon and within the Earth with emphasis on calculations used in flood forecasting, surface water supply and groundwater supply. Two hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 or 51.105.
- 51.410 Volcanoes (1) - Explores the composition and processes of the Earth as it relates to the occurrence and activity of volcanoes around the world. Considers styles and hazards of eruptions, the state of prediction and the formation of lava and volcanic rocks. Recommended for in-service and pre-service teachers. Does not satisfy general education requirements. Summer only, three hour class per day for one week.
- 51.451 Field Techniques in Earth Science (Summer) (6) - Provides intensive field and laboratory training in the use of equipment and techniques in geology, hydrology and cartography. Field trips are integral, vital parts of the course. Prerequisite: 15 semester hours in earth science courses or consent of the instructor.
- 51.460 Aqueous Geochemistry (4) - Introduces students to basic geochemical properties of surface and groundwater as well as controls on the geochemistry of natural waters. An emphasis is placed on the methods of sampling and analysis of natural waters for chemical species pertinent to environmental and pollution studies. Three hours lecture and two hours laboratory. Prerequisite: 51.261 and 51.216 or permission of the instructor.
- 51.468 Stratigraphy and Sedimentation (Fall) (4) - Studies processes and agents which erode, transport and deposit sediments and the geologic interpretation of the resulting rocks. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 and 51.111, 51.102, 51.112 or permission of the instructor.
- 51.470 Groundwater Hydrology (Spring) (3) - Covers well hydraulics exploration techniques, groundwater flow theory, development of groundwater supplies and prevention or correction of groundwater pollution. A one- or two-day field trip required. Two hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 and 51.365.
- 51.475 Independent Study in Earth Science (1-3) - Provides an opportunity for student research in various areas of earth science. Research is conducted under the supervision of a faculty member. See subsection of the catalog on Independent Study. Prerequisite: 21 semester hours in earth science.
- 51.480 Applied Geophysics (4) - Examines the theory and application of geophysical methods for exploring the Earth's subsurface environment. Emphasis on those tools used by agencies or companies involved in resource and environmental assessment. Three hours of lecture and two hours of laboratory per week. Prerequisites: 51.101, 53.123 and 54.111 or permission of the instructor.
- 51.490 Special Topics in Geology (3) - Study of a particular concept, problem or special topic or new ideas in any

area of earth science. Topic chosen through common interests of the instructor and each student. .

- 51.493 Senior Research in Geosciences (3) - Provides for library and/or field research in geology. Prerequisites: 51.261, 51.262, 51.468 or consent of the instructor.
- 51.511 Volcanoes (1) - Explores the composition and processes of the Earth as it relates to the occurrence and activity of volcanoes around the world. Considers styles and hazards of eruptions, the state of prediction and the formation of lava and volcanic rocks. Recommended for in-service and pre-service teachers. Does not satisfy general education requirements. Summer only, three hour class per day for one week.

## CHM (52) Chemistry

Administered by Department of Chemistry

Effective Fall 2001

- 52.100 Chemistry and the Citizen (3) - Discussion of chemical principles, the importance of chemistry, the use of chemicals and their impact on society and the environment. Three hours of class per week.
- 52.101 Introductory Chemistry (3) - Presents an introduction to chemistry for students with little or no background in chemistry. Surveys the principles of chemistry with emphasis on the fundamentals of chemical and physical measurements and calculations. Three hours of class per week. Not intended as a beginning course for science majors.
- 52.108 Physiological Chemistry (Spring) (4) - Surveys the essentials of organic and biochemistry. Includes bonding, structure, nomenclature organic functional group reactions and metabolism of biomolecules. Three hours class, two hours of laboratory per week. Prerequisite: 52.101.
- 52.115 Fundamentals of Inorganic Chemistry (4) - Introduces descriptive inorganic chemistry and the chemical principles necessary to understand the descriptive material. First half of two-semester sequence for natural science or mathematics majors. Partially fulfills core requirement in inorganic chemistry for American Chemical Society. Three hours of lecture/3 hours of laboratory per week. Prerequisite: High school chemistry or equivalent recommended.
- 52.116 Chemical Principles and Measurements (4) - Second semester of introductory chemistry for natural science and mathematics majors. Surveys principles of chemical stoichiometry, intermolecular forces, kinetics and thermodynamics as they apply to phase, electrochemical and acid-base phenomena. Laboratory work illustrates chemical principles and emphasizes common chemical measurements. Three hours of lecture and 3 hours of laboratory per week. Prerequisite: 52.115 plus high school Algebra II or equivalent.
- 52.230 Fundamentals of Organic Chemistry (4) - Emphasizes structure, stereochemistry, functional group organization, physical properties and classical reactivity of organic compounds. Three hours of lecture and 3 hours

of laboratory per week. Prerequisite: 52.116.

52.231 Organic Chemistry I (4) - Emphasizes structure and bonding, stereochemistry, nomenclature, physical and chemical properties and modern spectroscopy of alkanes, haloalkanes, alcohols and ethers. Three hours of lecture and four hours of lab per week. Prerequisite: 52.116

52.232 Organic Chemistry II (4) - A continuation of organic topics, building on 52.231, with emphasis on the synthesis and reactions of aromatics, aldehydes, ketones, carboxylic acids, their derivatives, amines, heterocycles and alkaloids. Three hours of lecture, four hours of lab per week. Prerequisite: 52.231

52.281 Introduction to Scientific Literature (Spring) (1) - Stresses the use of the library and scientific journals to facilitate the formulation of scientific research proposals and presentations. Experience gained in using the literature to design a senior research project and to make presentations to an audience of faculty and peers. One hour class per week. Prerequisite: Advanced standing as a natural science major.

52.321 Analytical Chemistry I (Fall) (3) - Introduces fundamental principles of chemical analysis utilizing classical wet chemistry and modern instrumental techniques. Stresses laboratory skills in the analysis of common commercial or environmental materials. Two hours of lecture and 4 hours of laboratory per week. Prerequisite: 52.116.

52.322 Instrumental Analytical Chemistry (4) - Presents the theory and laboratory applications of common methods of instrumental analysis. Topics include spectrophotometry, chromatography, mass spectrometry, nuclear magnetic resonance and electrochemistry. A laboratory centered course. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.321 and 52.362 completed or concurrent.

52.341 Biochemistry (4) - Emphasizes structure, reactivity and metabolic reactions of the naturally occurring biomolecules. Discusses selected topics from the various metabolic pathways (both anabolic and catabolic). Introduces biochemical techniques encountered by the modern biochemist. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.232 or 52.230.

52.361 Physical Chemistry I (Fall) (4) - Studies thermodynamics; Gibbs free energy and equilibrium; kinetic theory of gases and solutions; chemical kinetics. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.115, 52.116, 53.225, 54.212.

52.362 Physical Chemistry II (Spring) (4) - Continuation of 52.361; Schrodinger quantum mechanics, solid state, molecular orbital theory; spectroscopy. Three hours of lecture and 4 hours of laboratory per week. Prerequisite: 52.361.

52.371 Introduction to Polymer Science (3) - An introduction in polymer chemistry, studying the different methods of polymer synthesis and characterization of macromolecules. Emphasis on the molecular structure of these materials and how it relates to physical proper-

ties. Prerequisite: 52.232 or 52.230.

52.442 Biochemistry II (4) - Continuation of 52.341; amino acid metabolism, photosynthesis, nucleotide metabolism, replication, transcription, translation, control of gene expression, molecular physiology. Laboratory to emphasize enzyme isolation and molecular biology techniques. Three hours of lecture and 3 hours of laboratory per week. Prerequisites: 52.341 or equivalent or consent of the instructor.

52.452 Advanced Inorganic Chemistry (Spring) (4) - Theories and principles of inorganic chemistry; coordination chemistry organometallic chemistry, systematic analysis of periodic relationships and properties of important elements. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.115; 52.362 concurrent.

52.482 Advanced Topics in Chemistry (3) - Advanced course dealing with specialized topics of interest to students in ACS degree track. Subject matter varies. Course may be taken more than once provided subject matter is not repeated. Prerequisite: Consent of the instructor.

52.491 Independent Study in Chemistry (1-3) - Entails a directed laboratory or library oriented investigation of one or more topics of mutual interest to student and instructor.

52.492 Chemical Research I (1-3) - Requires a search of chemical literature and a written survey report of the search. A detailed plan of research (to be implemented in 52.493) is developed in a second written report. Prerequisite: approval of chemistry department.

52.493 Chemical Research II (3) - Investigations of selected chemical problems for advanced students. Approximately 120 hours per semester. Prerequisites: 52.492, approval of chemistry department.

52.494 Advanced Chemical Research (3) - The third semester of a laboratory investigation of selected problems under the supervision of a chemistry faculty member. Approximately 120 hours per semester. Prerequisite: enrollment in the honors program.

52.498 Internship in Chemistry (3-15) - A work-study program, this course is not applicable toward a major or minor in chemistry. Prerequisites: approval of chemistry department; junior or senior standing.

## MAT (53) Mathematics

Administered by Department of Mathematics and Computer Science

53.101 Mathematical Thinking (3) - Presents mathematical topics and applications in a context designed to promote quantitative reasoning and the use of mathematics in solving problems and making decisions. Suitable for majors in humanities, education and others seeking a broad view of mathematics. No background in algebra required.

53.111 Finite Mathematics (3) - Presents an introductory development of counting techniques, probability spac-

- es and game theory. Prerequisite: two years of high school algebra or equivalent.
- 53.112 Trigonometry (3) - Studies elementary algebraic functions and relations, exponential and logarithmic functions, circular functions and inverse functions and their applications. Prerequisite: 53.114 or two years of high school algebra or high school trigonometry or their equivalent.
- 53.113 Pre-Calculus (3) - Studies elementary algebraic functions and relations, exponential and logarithmic functions, circular functions and inverse functions and their applications. Prerequisite: 53.114 or two years of high school algebra or the equivalent.
- 53.114 College Algebra (3) - Studies fundamental algebraic concepts and develops the mathematical and computation skills necessary to apply algebraic techniques to problems in business, economics, the social and natural sciences and the liberal arts. Prerequisite: 1 1/2 years of high school algebra or the equivalent. Not open to students with a C- or higher recorded for 53.113, 53.123 or 53.125.
- 53.118 Applied Matrix Algebra (3) - Introduces vectors, matrices, linear equations and linear programming with applications to the social and biological sciences and business. Prerequisite: two years of high school algebra or equivalent.
- 53.123 Essentials of Calculus (3) - Presents the basic concepts of elementary calculus in a nonrigorous approach for students who are not mathematics majors. Pertinent topics in the real number system, analytic geometry, functions and limits prepare the student for the study of the basic techniques of applications of differentiation and integration. Course is not for chemistry, mathematics or physics majors. Prerequisite: At least two years of high school algebra or 53.114 or consent of the instructor.
- 53.125 Calculus I (3) - Designed to meet part of the major-level mathematics requirement; first in the sequence of four calculus courses. Provides the basic tools for differentiation and the beginnings of integration for functions of a single variable. Prerequisite: placement test or 53.113. TI-89 graphical calculator is required.
- 53.126 Calculus II (3) - Studies techniques of integration, functions, infinite series, Taylor's theorem, some special differential equations and polar coordinates. Prerequisite: 53.125. TI-89 graphical calculator is required.
- 53.141 Introduction to Statistics (3) - Presents the concepts necessary to use and understand basic statistical techniques. Topics include: descriptive statistics, probability, random variables, sampling distributions, hypothesis tests, confidence intervals and analysis of variance. Prerequisite: High school algebra.
- 53.185 Discrete Mathematics (3) - An introduction to set theory, logic, combinatorics and graph theory for those interested in mathematics or computer science. Not usually taken during the freshman year. Prerequisite: 53.125 or consent of instructor.
- 53.201 Theory of Arithmetic (3) - Presents the language of sets, the four elementary operations through the real number system and the elementary theory of numbers. Course is open only to majors in elementary education, special education or communication disorders.
- 53.202 Geometry and Statistics for Elementary Education Majors (3) - Presents the content of geometry and beginning probability and statistics for the elementary curriculum.
- 53.225 Calculus III (3) - Presents infinite sequences and series, power series, Taylor and Maclaurin series, three dimensional vector analysis and partial derivatives. Prerequisite: 53.126.
- 53.226 Calculus IV (3) - Presents an introduction to the differentiation and integration of real valued functions of several variables. Presents curves and parametric equations, surfaces, Taylor's, Stoke's and Green's theorems, functions between Euclidean spaces and multiple integrals. Prerequisite: 53.225.
- 53.231 College Geometry (Fall only) (3) - Presents elementary geometry from an advanced standpoint. Discusses incidence in the plane and in space, congruence, inequality and similarity concepts. Studies properties of circles, polygons and spheres. Prerequisite: High school geometry, 53.185.
- 53.240 Statistical Methods (Spring, even-numbered years) (3) - Presents common statistical techniques with emphasis on applications. Topics include: confidence intervals, hypothesis test, regression analysis and analysis of variance. Strongly encourages use of statistical software, especially SAS. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.241 Probability and Statistics (3) - Calculus-based study of probability and statistics. Topics covered include: descriptive statistics, probability, discrete and continuous random variables, common distributions, sampling distributions, estimation procedures and inferential statistics. A more rigorous course than 53.141. Prerequisites: 53.126 (or concurrent) and 53.185.
- 53.243 Nonparametrics Statistics (3) - Presents standard nonparametric statistical procedures. After a brief review of hypothesis testing fundamentals, topics such as goodness-of-fit tests, one and two-sample procedures for location parameter, tests of randomness and association analysis are covered. Prerequisites: 53.123 or 53.125 and 53.141 or the equivalent.
- 53.303 Mathematical Problem Solving for Teachers (3) - Examines mathematical problem solving, number sense, pattern recognition and mathematical reasoning. Basic problem solving, use of manipulatives and assessment are covered. Games involving mathematical problem solving are examined and designed. Requires off-campus observations and testing. For elementary and secondary education majors. Prerequisite: 53.201.
- 53.310 Introduction to Abstract Algebra (3) - Provides an introduction to the language and methods of abstract mathematics. Subjects include sets, relations, rings, functions, groups and fields. Prerequisites: 53.185 with a minimum grade of C- and 53.225.

- 53.311 Algebra for Secondary School Teachers (Fall/even-numbered years) (3) - Presents topics of elementary algebra from an advanced viewpoint. Considers topics of contemporary school mathematics programs. Intended for students in secondary education majoring in mathematics. Prerequisite: 53.310.
- 53.314 Linear Algebra (3) - Studies abstract vector spaces, linear transformation, matrices, determinants, inner product spaces and related topics. Prerequisites: 53.185 and 53.126.
- 53.322 Differential Equations (3) - Studies elementary ordinary differential equations, infinite series and power series solution, some numerical methods of solution and LaPlace transforms. Prerequisite: 53.225.
- 53.331 Modern Geometry (Spring/odd-numbered years) (3) - Presents non-Euclidean geometrics and their development from postulate systems and a formal approach to projective geometry. Prerequisite: 53.231.
- 53.340 Statistical Software (Fall, even numbered years) (3) - Provides an introduction to the most widely-used statistical software packages in government and industry. Students gain practical experience by solving real-world statistical problems encountered by various government agencies and private companies. Graphical and numerical descriptive procedures and inferential statistical techniques will be discussed. Prerequisite: 53.240.
- 53.342 Design and Analysis of Experiments (Fall, even-numbered years) (3) - Basic experimental statistics including methods of estimation and hypothesis testing, analysis-of-variance procedures, principles of experimental design, completely randomized and randomized complete block designs, factorial arrangements of treatments, linear regression and correlation analysis, covariance analysis and distribution-free methods. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.343 Applied Regression Analysis (Fall, odd-numbered years) (3) - A basic course in multiple linear regression methods including weighted least squares, stepwise regression, residual analysis and applications to mathematical models. Treats problems which involve the use of computing equipment. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.360 Number Theory (Spring only) (3) - Presents the theory of numbers. Includes the topics of Euclidean algorithm, congruences, continued fractions, Gaussian integers and Diophantine equations. Prerequisites: 53.185 and 53.225.
- 53.361 Coding and Signal Processing (Spring only) (3) - A mathematical approach to codes and ciphers. Includes security codes, coding for efficiency in computer storage, error-correcting codes. Signal processing, including the Fourier transform and digital filters. Individual projects required. Prerequisites: 53.126 and 56.116 or 56.122.
- 53.373 Numerical Methods in Computing (Fall) (3) - Analysis and application of various methods of numerically solving problems in the areas of nonlinear equations; systems of equations, interpolation and polynomial approximation; numerical integration; approximation theory; and differential equations. Students design and execute algorithms on the computer for specific numerical procedures. Prerequisites: 56.121 and 53.126.
- 53.374 Introduction to Discrete Systems Simulation (Spring/odd-numbered years) (3) - Studies the ways that systems can be modeled for computer solution. Emphasizes stochastic behavior by discrete random processes and the simulation tools for their solution. Prerequisites: One course each in calculus, programming and statistics.
- 53.381 Introduction to Operations Research (Fall/odd-numbered years) (3) - A survey of the methods and models used in applying mathematics to problems of business. Topics drawn from decision making, linear and dynamic programming, networks, inventory models, Markov processes and queuing theory. Prerequisites: 53.118 and 53.123 or 53.225.
- 53.411 Introduction to Group Theory (3) - Continued and advanced study of theorems and applications of group theory begun in abstract algebra. Prerequisite: 53.310.
- 53.421, 53.521 Advanced Calculus (Spring, even numbered years) (3) - Presents a rigorous treatment of the study of functions of a single real variable. Topics include limit, continuity, derivative and integration. Some topics for multivariable calculus include partial differentiation and multiple integration. Prerequisites: Analysis IV, Permission of Instructor.
- 53.422 Complex Variables (Fall, odd numbered years) (3) - A rigorous treatment of complex numbers and an introduction to the theory of functions of a complex variable. Central topics are the complex number system, analytic functions, harmonic functions and conformal mappings. Additional topics may include power series, contour integration, Cauchy's formula and applications. Prerequisites: 53.226, consent of instructor.
- 53.441 Mathematics and Sports (Fall, even numbered years) (3) - Links between mathematics, statistics and sports; includes data analysis and modeling related to the various facets and types of sports using certain mathematical and statistical techniques. Sports used as examples include basketball, tennis, volleyball, track and weightlifting.
- 53.446 Biostatistics (3) - An introduction to the concepts and methods of advanced statistical techniques that arise in health and life sciences with emphasis on problems that are likely to be encountered by graduate researchers in biological sciences. It includes methodologies for design and analysis of multivariate data. The use of statistical software to analyze data sets is stressed.
- 53.451 Introduction to Topology (3) - Introduces fundamentals of general topology; elementary set theory, topological spaces, mappings, connectedness, compactness, completeness, product and metric spaces; nets and convergence. Prerequisites: 53.226, consent of instructor.
- 53.461, 53.561 Probability Models and Applications (3) - An introduction to the concepts and methods of probabilistic modeling for random trials and occurrences. It covers classical models, poisson processes, Markov

- chains, Renewal and Branching processes and their applications to various phenomena in engineering, management, physical and social sciences. Prerequisite: 53.241.
- 53.462 Introduction to Mathematical Statistics (Fall, even-numbered years) (3) - An introductory study of mathematical statistics including distributions of functions of random variables, interval estimation, statistical hypotheses, analysis of variance and the multivariate normal distribution. Prerequisite: 53.241.
- 53.471 Numerical Analysis (3) - Provides a computer-oriented analysis of algorithms of numerical analysis. Includes the topics of non-linear equations, interpolation and approximation, differentiation and integration, matrices and differential equations. Prerequisites: 53.322 and 53.373.
- 53.472 Matrix Computation (Spring/odd numbered years) (3) - Presents a computer-oriented analysis of matrices. Includes Gaussian reduction, LDU factorization, special reduction techniques for tridiagonal matrices, iterative methods and a study of the matrix eigenvalue problem. Prerequisites: 53.225 and 53.373.
- 53.491 Special Topics in Mathematics (3) - Presents an area of mathematics which is not available as a regular course offering. Prerequisite: Consent of the instructor.
- 53.492 Independent Study in Mathematics (I-3) - Provides for directed study of a particular area of mathematics as mutually agreed upon by the student and the instructor. Emphasizes individual scholarly activity of the highly motivated student.
- 53.493 Honors in Independent Study in Mathematics (3) - For students who have demonstrated a high level of interest and ability in mathematics and have mastered the required course work. Students investigate research problems selected under the supervision of a faculty member of the Department of Mathematics and Computer Science. Prerequisite: Admission to the Honors Program in natural sciences and mathematics.
- 53.497 Internship in Mathematics (2-12) - Provides mathematics majors with an opportunity to acquire meaningful and professional on-site training and learning experiences in mathematics at an industrial, private or business workplace. Note: a student may, with departmental approval, apply a maximum of 3 credits of internship toward the fulfillment of the mathematics major. Each academic credit requires 40 hours of supervised work and the limit is 12 total semester hours for internships. Prerequisites: students must establish adequate course preparation for the proposed internship. Internship applications must be submitted one month before the internship begins and must be approved by the department chairperson.
- 53.500 Research and Communication in Applied Mathematics (3) - Practical information for scientists about research and technical writing. A study of how to prepare a manuscript and an introduction to certain basic communication principles that are accepted in most disciplines. Prerequisites: Analysis I, II, III, Probability and Statistics
- 53.520 Mathematical Modeling (3) - An introduction to the concepts and methods of mathematical modelling with emphasis on the problems that arise in governmental and industrial projects. It includes modelling process, model construction including numerical considerations, testing the appropriateness of the models, model analysis and model research. Prerequisites : Analysis I, II, III or permission of instructor
- 53.522 Applied Differential Equations (3) - Presents an advanced treatment of differential equations including systems of linear differential equations, systems of nonlinear differential equations, and boundary value problems and their solutions, asymptotic behavior and applications. Prerequisite: Analysis III
- 53.541 Applied Statistics (3) A comprehensive treatment of applications of statistical methodology in practice, and development of statistical techniques for real world problem solving. Prerequisite: A first course in statistics.
- 53.542 Design and Analysis of Experiments (3) - Basic experimental statistics including analysis-of variance procedures, principle of experimental design, completely randomized and randomized complete block designs, factorial arrangements of treatments, linear regression and correlation analysis, covariance analysis and distribution-free methods and the Taguchi approach to parameter design.
- 53.543 Regression (3) - An in-depth, modern, applied approach to the study of multiple linear regression analysis. Topics include simple linear regression, inferences in regression analysis, examination of residuals, multiple regression, and model selection procedures. Prerequisites: Analysis I, II, III, Probability and Statistics
- 53.544 Statistical Quality Control (3) - Presents the modern practice of statistical quality control with a strong engineering and management orientation. Prerequisite: Probability and Statistics, Applied Statistics
- 53.545 Time Series Analysis and Its Application (3) - A survey of time series models, their statistical analysis and applications. It includes investigation of trend, seasonal variations, serial dependency and stationarity, and covers estimation, forecasting, and identification techniques for stationary and nonstationary autoregressive, moving average, and mixed models and related computational problems.
- 53.546 Biostatistics (3) - An introduction to the concepts and methods of advanced statistical techniques that arise in health and life sciences with emphasis on problems that are likely to be encountered by graduate researchers in biological sciences. It includes methodologies for design and analysis of multivariate data. The use of statistical software to analyze data sets is stressed.
- 53.563 Nonparametric Statistics (3) - Presents a comprehensive account of statistical inference using nonparametric approaches. Attempts to provide modern nonparametric techniques for data analysis with a view towards application. Prerequisite: Applied Statistics
- 53.572 Operations Research (3) - Presents the principles of

mathematical modeling applied to man-machine systems. Special emphasis will be given to mathematical programming models including linear and integer programming. Optimal decision models will be a focus of the course Mathematical Software. Prerequisite: Graduate Standing

- 53.574 Advanced Discrete Mathematics (3) - Includes discussion of topics such as combinatorial analysis (enumeration of various types of objects), discrete structures (for example, sets, relations, graphs, and finite state machines), algorithmic thinking (development, implementation, and verification of algorithms) and applications of these ideas to diverse fields (such as business, linguistics and the sciences). Prerequisites: 56.121 (Computer Science 1), 53.125 (Analysis I), 53.185 (Introduction to Discrete Mathematics), 53.310 or 53.314 or 53.360
- 53.576 Computer Graphics for Instructional Applications (3) - Sequel to 53.375 where techniques for creating color, graphics, and sound are examined and applied to the development of instructional computing programs.
- 53.592 Special Topics (3)
- 53.471, 56.571 Numerical Analysis (3) - A graduate level course in numerical analysis in the areas of nonlinear equation and systems of equations, interpolation theory, numerical integration, differential equations, numerical solution of linear systems, and the matrix eigenvalue problems. The original problems to be solved and the numerical methods will be studied, including the derivation of the method, error analysis, convergence analysis, and computational implementations. Prerequisites: Calculus III, Fortran, and an elementary numerical method course (or permission of instructor)

## PHY (54) Physics

Administered by Department of Physics and Engineering Technology

- 54.101 Basic Physical Science (3) - An introductory integration of concepts and principles from chemistry, physics and astronomy, with consideration for the nature of scientific thought and the interaction of science with human and community concerns. For nonscientists.
- 54.103 Principles of Physical Science (3) - An integrated physical science course emphasizing laboratory experience. Provides an introduction to the basic concepts of physical science by studying such topics as the structure and properties of matter, motion and forces, energy, light and sound, electricity and magnetism and astronomy. For elementary and special education majors. Four hours class/laboratory per week.
- 54.104 Elementary Electronics (3) - An introduction to basic electronics that gives students in nonphysical science areas some theoretical and practical knowledge of electronic circuits, instruments and devices. No experience of physics or electronics required.
- 54.105 Energy: Sources and Environmental Effects (3) - Explains energy in elementary scientific terms and exam-

ines present national and international energy situations in regard to sources, utilization and environmental effects. Surveys fossil fuels and nuclear, solar, geothermal and other energies with respect to availability and promise for the future.

- 54.106 The Science of Sound (3) - Provides an introduction to the principles of sound and its reproduction for students in nonphysical science disciplines. Knowledge of basic algebra required, but no experience in physics or electronics necessary.
- 54.107 Applied Physics for Health Sciences (4) - Studies selected principles of physics with applications to the processes and instrumentation of medical technology. Examines mechanics, fluids, kinetic energy and heat, optics, electricity and magnetism, electronics, atomic structure, radiation and data acquisition and readout. Six hours per week: 3 classes, 3 laboratories.
- 54.110 Introduction to Astronomy (3) - Surveys the physical state of the universe and the variety of objects it comprises: solar system, stars and galaxies. Provides a descriptive account of the present state of our knowledge of the cosmos and an understanding of how such knowledge is obtained. Intended for nonscience majors.
- 54.111 Introductory Physics I (4) - Presents an approach to selected topics such as mechanics, heat, kinetic theory, molecular theory of gases, wave motion and sound. Not intended for students specializing in physics or chemistry. Six hours per week: 3 classes, 3 laboratories.
- 54.112 Introductory Physics II (4) - Studies electricity, magnetism, light, relativity, quantum and atomic theory, structure of matter, nuclear physics and particle physics. Continuation of 54.111. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 54.111 or consent of instructor.
- 54.210 Observational Astronomy (3) - Provides hands-on experience in observations of the night sky. Focuses on the interpretation of astronomical measurements, including the students' own telescopic observations of stars, planets, nebulae and other objects. Open to nonscience majors. Prerequisite: 54.110 or consent of instructor.
- 54.211 General Physics I (4) - An introduction to physics using calculus. Studies mechanics, the physics of fluids, kinetic theory, heat and thermodynamics. Appropriate for physical science or mathematics majors. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 53.125 or concurrent registration.
- 54.212 General Physics II (4) - Studies wave motion, sound, geometrical and physical optics, electricity and magnetism. Continuation of 54.211. Six hours per week: 3 classes, 3 laboratories. Prerequisites: 53.126 or concurrent registration; 54.211 or 54.111 with consent of instructor.
- 54.301 Mechanics: Statics (3) - Introduces the fundamentals of statics, with an emphasis on vector methods, at a level appropriate for physical science majors and for students considering a career in the engineering field. Prerequisites: 53.126 or concurrent registration; 54.211

or 54.111 with consent of instructor.

54.302 Mechanics: Dynamics (3) - Introduces the fundamentals of dynamics, with an emphasis on vector methods, at a level appropriate for physical science majors and for students considering a career in an engineering field. Prerequisites: 53.225 or concurrent registration; 54.212 or 54.112 with consent of the instructor.

54.310 Modern Atomic Physics (3) - Presents some of the basic concepts and phenomena that constitute modern physics, including studies of the quantum nature of radiation, atomic structure and spectra, X-rays, relativity, wave-particle duality, the uncertainty principle and a brief introduction to nuclear physics and radioactivity. Prerequisite: 54.212 or 54.112 with consent of instructor, 53.126.

54.314 Electricity and Magnetism (3) - Studies electric and magnetic fields and potentials, electric and magnetic properties of matter, electrodynamics and electromagnetic waves. Prerequisites: 54.212 or 54.112 with consent of instructor, 53.225.

54.315 Electronics (4) - Presents the theory and application of semiconductors with special emphasis on circuitry. Studies basic electronic instrumentation as related to the gathering, processing and display of scientific data in any discipline. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 54.112 or 54.212 or 58.141.

54.316 Digital Electronics (3) - An introduction to the techniques and devices of digital electronics. Includes practical experience of the building and testing of digital circuits. Supplies the background necessary for the understanding of microprocessors and computer circuits. Prerequisite: junior standing or consent of instructor.

54.317 Computer Electronics (3) - An introduction to the electronics and operation of digital computers. Intended for students with a background in digital circuitry. Includes practical experience of the operation and interfacing of microprocessors and other devices. Prerequisite: 54.316 or consent of instructor.

54.318 Optics (4) - Presents a combination of geometrical optics including lens theory with physical (wave) optics including diffraction, interference, polarization, lasers and coherent light. Six hours per week - 3 classes, 3 laboratory. Prerequisite: 54.212 or 54.112 with consent of the instructor.

54.320 Nuclear Radiation I (2) - Presents a laboratory-oriented course using modern nuclear electronics and detectors for measuring and analyzing nuclear radiation. Four hours per week: one class, 3 laboratories. Prerequisite: 54.310 or concurrent registration.

54.330 Radiation Physics (3) - Presents properties and models of nuclei, radioactive decay, radiation and its interaction with matter and nuclear applications. Prerequisite: 54.310 or concurrent registration.

54.341 Astrophysics: Galaxies and Cosmology (3) - Focuses on objects outside of our own galaxy, discusses emission mechanisms from other types of galaxies including normal spirals, sefverts and quasars. Structure of the universe as a whole is described using various cos-

mological models. Prerequisites: 53.126 and 54.112 or 54.212.

54.360 Health Physics (3) - Presents a study of the principles of health physics, including biological effects of radiation, dosimetry, radiation measurement and radiation protection. Prerequisite: 54.310 or concurrent registration.

54.400 Advanced Physics Laboratory (2) - Presents the basic tenets of lab work in physics, involving considerations of experimental error, proper research and preparation of an experiment. Includes experiments primarily from the areas of atomic physics, electricity, magnetism and optics. Four hours per week: one class, 3 laboratories. Prerequisites: 54.310.

54.420 Nuclear Radiation II (2) - A laboratory course which presents advanced techniques of nuclear measurement and includes applications involving environment monitoring and health physics. Four hours per week: one class, three laboratories. Prerequisite: 54.320 or consent of instructor.

54.421 Solid State Physics (3) - Examines physical properties of matter in the solid state. Reviews basic quantum concepts, crystal structure, electrons in metals, electrical conductivity, semiconductors, band theory and the p-n junction. Studies dielectric and magnetic properties of matter. Three hours of class per week. Prerequisite: 54.310, 54.314; Mathematics 53.225.

54.422 Thermodynamics (3) - Presents concepts and principles of classical thermodynamics, thermodynamics of simple systems, introduction to kinetic theory and statistical thermodynamics. Three hours of class per week. Prerequisite: 54.212 or 54.112 with consent of instructor; Mathematics 53.225.

54.450 Introduction to Quantum Mechanics (3) - Examines the development and interpretation of Schroedinger's wave mechanics, its mathematical formalism and the results and predictions of this quantum theory as applied to one-dimensional systems, the hydrogen atom and multi-electron atoms. Three hours class per week. Prerequisite: 54.310; Mathematics 53.225.

54.460 Applied Health Physics (3) - Presents advanced topics involving health physics principles and radiation protection standards as applied to science, industry and medicine. Prerequisite: 54.360 or consent of instructor.

54.490 Seminar in Physics (1) - A selected topic in physics is studied and prepared in a form suitable for presentation. Student attends and participates in physics seminars and makes a presentation in the same semester of enrollment in the course.

54.491 Independent Study in Physics (1-3) - Investigates an area of special interest and value to the student, under the direction of a faculty member, following a plan approved in advance by the department chairperson. May be partly interdisciplinary and may involve limited experimental work.

54.493 Independent Research (1-3) - Provides for an application of theoretical and/or experimental research methods to a special problem. May be interdisciplinary.

Requires the preparation of a report and a plan, approved in advance by the department chairperson, which is acceptable to the student and the supervising faculty member.

- 54.494 Honors Independent Study in Physics (3) - Provides the qualified student with an opportunity to participate in an advanced experimental or theoretical investigation of a current problem in physics, under the supervision of a physics faculty member having expertise in the student's proposed research area.

## MRS (55) Marine Science

Administered by Department of Biological and Allied Health Sciences and Department of Geography and Earth Science

Marine Science Courses are offered during the summer at the Marine Science Center in Wallops Island, Virginia. Bloomsburg University and other institutions are members of the consortium that operates the center. Courses are offered which satisfy requirements for biology majors, for earth science majors and for general education. Specific courses satisfy requirements for the Marine Biology Option in Biology. Other courses provide earth science majors experiences which are not available on the main campus. For more information, contact the Marine Science coordinators in the Departments of Biological and Allied Health Sciences and Geography and Earth Sciences.

- 55.110 Introduction to Oceanography (3) - An introduction to the marine sciences with an emphasis on physiography of ocean basins, wave motion, tides, current circulation patterns, near-shore processes, physical and chemical nature of sea-water and methods of investigation.
- 55.211 Field Methods in Oceanography (3) - Familiarizes students with the dynamic marine environment and with work on board a research vessel. Introduces the use and application of standard oceanographic instruments and sampling devices. Independent research is promoted and encouraged. Prerequisite: 51.259 or 55.110.
- 55.221 Marine Invertebrates (3) - A study of the life, history, habits origin, development, physiology, anatomy and taxonomy of the main phyla of invertebrates. A phylogenetic sequence is followed to show interrelationships among the phyla. Special emphasis is given to the Atlantic marine invertebrates. Laboratory and field work deal with collection, preservation and identification of local species. Prerequisite: 50.110, 50.120 or consent of the instructor.
- 55.241 Marine Biology (3) - A study of plant and animal life in the marine environment. Emphasis on physical and chemical environmental factors affecting the biota in the intertidal, open water and benthic habitats. Common biota characteristics of each habitat will be investigated in terms of their natural history, morphology and ecological relationships. Prerequisite: 50.110, 50.120 or consent of the instructor.
- 55.250 Wetlands Ecology (3) - Biological, chemical and geological characteristics of coastal wetlands. Considers the

structure and function of wetlands, human impacts on wetlands and approaches for wetland management and restoration. Laboratory consists of field exercises in the study of wetlands. Prerequisite: 50.110, 50.120.

- 55.260 Marine Ecology (3) - Interrelationships among animals, plants and physical and chemical aspects of the environment studied, with stress on adaptations for survival that are unique to the marine environment.
- 55.270 SCUBA Diving (3) - Basic SCUBA diving coupled with advanced techniques. Leads to open-water certification. Prerequisite: Swimming Proficiency and physicians certification of fitness for SCUBA are required.
- 55.300 Behavior of Marine Organisms (3) - Concepts of ethology; discussion and observation of the influence of external and internal factors on the regulation; and control of behavior of organisms living in the marine coastal environment. Prerequisite: 50.110.
- 55.320 Marine Microbiology (3) - A survey of methods and concepts of marine microbiology. Focus on the technical aspects of sample collection, microbial ecology of the marine environment, enrichment culturing and methods of enumeration and identification with emphasis on marine bacteria. Prerequisite: 50.110, 50.120.
- 55.330 Tropical Invertebrates (3) - Introduction to tropical invertebrates, using a variety of collection and observation methods to sample nearshore and reef areas. Emphasis on systematics and ecology using the communities approach. One week at Wallops Island, Va., for intensive review of general systematics and ecology of marine invertebrates; then two weeks in Florida sampling and identifying species and describing ecological communities. Course is a sequel to marine invertebrates or a landlocked invertebrate zoology course or a thorough landlocked zoology course. Prerequisites: 55.221 or 50.211.
- 55.331 Chemical Oceanography (3) - A field-based study of ocean, bay and estuarine environmental chemistry. Develops and awareness of the relationships between chemical, geological and biological environments. Investigates the chemical compositions of waters and substrata and biogeochemical processes and cycles. Prerequisite: 52.215.
- 55.342 Marine Botany (3) - Taxonomy, physiology, ecology and economic importance of marine and coastal plants as exemplified by those found on the Delmarva Peninsula. Laboratory techniques include collecting, preserving, identifying and analyzing plants and plant materials, appropriate instrumentation to be used. Emphasis on in-the-field studies and laboratory analyses. Prerequisite: 50.110, 50.120.
- 55.343 Marine Ichthyology (3) - A study of the internal and external structure of fishes, their systematic and ecological relationships and their distribution in time and space. Prerequisite: 50.110, 50.120.
- 55.345 Ornithology (3) - Introduces avian fauna of the sea coast and enables comparison with inland species. Field work provides visual and vocal identification; lecture material includes information on distribution, behavior,

- physiology and anatomy of birds. Prerequisite: 50.110, 50.120.
- 55.362 Marine Geology (3) - Structure and sedimentology of ocean basins and shores. Presents methods of geological exploration in the marine environment, features of ocean basins and theories of ocean basin evolution. Prerequisite: 51.101, 51.102, 51.111, 51.112 and 51.259 or 55.110.
- 55.364 Physical Oceanography (3) - A study of the physical properties of the oceans including: mass and energy budgets; theory of the distribution of variables; cause, nature, measurement, analysis and prediction of tides, currents and waves; and basic instrumentation in field work. Prerequisite: 51.259 or 55.110 or 53.125 and 54.112 or permission of instructor.
- 55.394 Comparative Physiology of Marine Organisms (3) - This course will provide an introduction to the physiology of marine organisms utilizing a comparative approach. The lecture will introduce the topics of respiration, circulation, metabolism, osmoregulation, thermoregulation, locomotion and sensory systems by drawing comparisons between the mechanisms and strategies utilized by a wide range of marine organisms. Laboratory and field work will focus on the physiological responses of marine plants and animals to common environmental stresses such as salt load, temperature variation, depletion of dissolved oxygen and tidal flux. This will be accomplished through measurements and observations in the field, as well as through experimental manipulations in a laboratory setting. Prerequisite: 50.110, 52.115, 52.131, 55.241 or permission of instructor.
- 55.430 Coastal Sedimentation (3) - A study of depositional environments of marine dominated shorelines, sediments, sedimentation processes, sedimentary facies, models of rock record growth, barrier island dynamics and development of tidal deltas. 51.101, 51.102, 51.111, 51.112 or permission of instructor.
- 55.431 Ecology of Marine Plankton (3) - Studies phytoplankton and zooplankton in marine and brackish environments. Qualitative and quantitative comparisons made between the plankton populations of various types of habitats in relation to primary and secondary productivity. Prerequisites: 50.110, 50.120.
- 55.432 Marine Evolutionary Ecology (3) - The study of the ecological mechanisms underlying evolutionary processes. This course is broad in scope and requires that students synthesize both evolutionary and ecological concepts and theory into an understanding of how organisms adapt to their environment. Marine, estuarine and maritime organisms are used as model systems and processes which affect marine populations are emphasized.
- 55.441 Biology of Molluscs (3) - An evolutionary, functional and ecologic approach to studying the second largest group of animals and perhaps the most diverse in terms of morphological, ecological and behavioral variations. Prerequisites: 50.110, 50.211 recommended.
- 55.459 Coastal Geomorphology (3) - Study of coastal geomorphology with an emphasis on Late Cenozoic and Pleistocene sea and lake-level changes in response to world-wide glaciation. Students participate in field studies of Pleistocene deposits and the weathering and erosion of these deposits. Prerequisite: 51.101, 51.102, 51.111, 51.112 .
- 55.464 Biological Oceanography (3) - Interdisciplinary study of the interactions between biological communities and the ocean environment as seen by distributions of coastal plankton, fish and benthic invertebrates. Projects involve boat trips to sample populations and to quantitatively document environmental variables with state-of-the-art equipment, laboratory and field experiments to determine rate processes and visits to nearby field and government laboratories. Examples of project topics include transport of plankton at barrier island passes, effect of submarine banks on fish populations, ground truth data for satellite imagery and other current topics in biological oceanography. Prerequisite: 50.110, 50.120, 50.242. Recommended: 51.259 or 55.110.
- 55.470 Research Diver Methods (3) - Study and practice of aquatic research methods using SCUBA as a tool. Advanced research diving topics include areas such as navigation, search and recovery, underwater photography, survey methods, estimating population parameters and data acquisition while under water. Specific research techniques will be presented in the context of specific aquatic research projects conducted by students under the direction of the instructor. Prerequisite: 50.110 and Basic SCUBA Certification (NAUI, PADI, SSI).
- 55.490 Marine Aquaculture (3) - This course includes the theory and practice of raising organisms for food and for the aquarium trade. Techniques of raising economically important organisms from the egg stage to marketable size and their food supplies are studied.
- 55.491 Coral Reef Ecology (3) - A study of coral reef structure, formation, types and the relationships of reef organisms to their environment. Emphasis is given to species diversity, identification, symbiosis and effects of temperature, salinity, light, nutrient concentration, predation and competition on the abundance and the distribution of coral reef organisms. Prerequisite: 50.110, 50.120 and SCUBA and/or snorkeling experience.
- 55.492 Marine Mammals (3) - A study of the distribution, population ecology, behavior, physiology and adaptations of marine mammals. Student projects entail collecting physiological and behavioral data at field sites and at facilities studying marine mammals. Prerequisite: 50.110, 50.120, 50.212 or 50.361 recommended; preferences given to undergraduate senior students in registering.
- 55.500 Problems in Marine Science (3) - Graduate students may pursue one of the following options: Option A - Enroll in 200, 300, or 400 level course offered at the Marine Science Center in which they desire advanced work and complete, in addition to the regular course requirements, an approved project in the area under the direction of the instructor. Written permission from the instructor is required. OR - Option B - Enroll in an Independent Research Project. To be admitted, a student must submit a research proposal to the academic

committee of the Marine Science Consortium. The proposal must include the scope and duration of the proposed research, equipment and facilities required, and a recommendation and approval from the student's academic adviser. Requires written permission for graduate credit acceptability from the chairperson of the graduate committee of the Department of Biological and Allied Health Sciences before registering. Copies of this approval and the instructor's permission must be forwarded to the vice president for research of the Marine Science Center before the student arrives on station to take the course.

55.540 Environmental Science Education (3) - Field-oriented approach to environmental education with special emphasis upon coastal zones. Students relate their own disciplines to education for quality environments. Consideration will be given to sources, facilities, methods, techniques, and concepts used in environmental education.

55.541 Biology of Mollusca (3) - The Mollusca is the second largest group of animals and perhaps the most diverse in terms of morphological, ecological and behavioral variations. This course offers an evolutionary, functional and ecological approach to studying this important group of organisms.

55.570 Research Cruise - Biology (3) - A three-week session involving planning and preparations for an oceanographic research cruise of approximately eight days, actual execution of the cruise plan on board an ocean research vessel. Introduces data-processing techniques and instrumentation used by biological oceanographers. Prerequisite: 55.241 or its equivalent, or permission of the instructor.

55.593 Behavioral Ecology (3) - Designed to present animal behavior within an ecological and evolutionary context. Presents mathematical and theoretical framework of behavioral ecology. An in-depth exploration of the ways in which the behavior of animals is influenced by the environment, especially with regard to resource distribution.

## CPS (56) Computer Science

Administered by Department of Mathematics, Computer Science and Statistics

56.110 Introduction to Computer Science (3) - Presents an introduction to computers and data processing - what they are, how they function, how they are controlled and how they are used in problem solving. Basic concepts include hardware, I/O systems, data communication and storage, flow charting and programming in BASIC on a microcomputer. Hands on experience with word processing, spreadsheets and data base software is required. Not appropriate and credit for 56.110 will not be given to a student who has taken Computer and Information Systems 92.150.

56.116 Algorithmic Processes for Computers (3) - Emphasizes concepts of FORTRAN 77; input and output, program documentation and control, structured program-

ming, extended modes of arithmetic, character strings and program development and execution. May not be used toward the Computer Science major. Prerequisite: Programming experience or consent of the instructor.

56.121 Computer Science I (4) - A programming course for students with no prior programming experience. Teaches students how to write programs to solve problems using Java language. Problem solving methods are presented and some basic object-oriented programming design issues are discussed. Students given extensive "hands-on" experience with guidance from the instructor. Prerequisite: 56.110 or the equivalent.

56.122 Computer Science II (4) - A continuation of Computer Science I. Emphasizes software engineering principles in the context of programming. Elementary program performance analysis is performed. Class covers searching and sorting algorithms. Pointers and dynamic structures: linked lists, stacks, queues and binary trees will also be studied. Advanced object oriented design methodologies and recursion will be introduced. Prerequisite: 56.121.

56.221 Computer Science III (4) - Increases the students breadth and flexibility as a programmer and is a prerequisite for most 300 and 400 level courses in computer science. Covers C and C++ languages as well as editing, compiling and debugging in a Unix environment. Introduces nonlinear data structures and hashing and emphasizes object oriented programming and design. Prerequisite: 56.122.

56.240 Assembly Language Programming (Fall) (3) - Advanced topics in programming with a microcomputer, introductory concepts of microcomputer architecture, operating systems and machine and assembly language for microprocessors. Prerequisite: 56.122.

56.250 Programming Language Paradigms (3) (Spring) - Gives an introduction to the functional, logical and object oriented programming language paradigms. Entering students should already have at least one year of experience with a block structured procedural language. Course gives students a better understanding of programming languages in general and will specifically lead to an understanding of how to use a specific language from three different programming language paradigms to solve programming problems. Prerequisite: 56.221.

56.305 Computer Applications in Secondary School Mathematics (Spring) (3) - Studies the theory, design and usage of a computer as an instructional or training tool. Uses microcomputer to demonstrate and develop software applications. Prerequisite: 56.121.

56.323 Artificial Intelligence (3) (Fall, even numbered years) - Provides an understanding of the philosophy, content, methods, successes and failures of artificial intelligence. Course includes history of artificial intelligence, knowledge representation, game playing, expert systems, logic and theorem proving, search strategies, natural language processing, neural networks, genetic algorithms and problem solving. Prerequisite: 56.221

56.330 Digital Design (Spring) (3) - Design of combination-

- al and sequential circuits. Coding, various instruction formats and representation of data. Memory, central processors, input-output devices. Introduction to computer architecture. Characteristics and features of some existing computer systems. Prerequisites: 56.122, 53.185, 56.240
- 56.350 Organization of Programming Languages (Fall) (3) - An introduction to the issues of programming languages: syntax, semantics, parsing, language specification and analysis. Emphasis on the run-time behavior of programming language constructs. Prerequisite: 56.250.
- 56.355 Analysis of Algorithms and Data Structures (Spring) (3) - A detailed analysis of algorithms and data structures. Examination of theoretical and experimental performance of algorithms and data structures. Particular attention to algorithms for searching and sorting and techniques for implementing and manipulating various data structures: stacks, queues, trees, graphs and files. Prerequisites: 56.221, 53.185, 53.126.
- 56.356 Windows Programming (Spring) (3) - Introduces object oriented programming including the concepts of objects, windows environment, inheritance, encapsulation, polymorphism and event driven programming. Participation in the development of a large scale application project is required. Prerequisite: 56.221 or 56.250.
- 56.357 Principles of Database Design (Fall, even-numbered years) (3) - Considers the principal functions of a database management system. Basic concepts used by all database models will be taught. Details of the hierarchical, network and relational database models will be studied in detail. Course examines query languages in general and uses a data manipulation language (DML) and studies its applications. Students implement a relational database management system that involves execution of operations such as an intersection, union, difference, join and multijoins of relations. Study of a commercially available DML prepares students for a career dealing with database systems. Prerequisite: 56.221.
- 56.373 Numerical Methods in Computing (Fall) (3) - An analysis and application of various methods of numerically solving problems in the areas of nonlinear equations; systems of equations, interpolation and polynomial approximation; numerical integration; approximation theory; and differential equations. Students use a computer to design and execute algorithms for specific numerical procedures. Prerequisites: 56.121 or 56.116, 53.126.
- 56.375 Local Area Networks (3) (Fall, odd-numbered years) - Examines in detail key local area network standards and the fundamental concepts of local area network (LAN) technology. Provides an understanding of network architecture, data transmission methods and major LANs currently in use. Investigation of LAN protocols, topologies and network operating systems includes hands on experience in installing and demonstrating peer-to-peer and client-server LANs. Prerequisite: 56.240 or permission of the instructor.
- 56.386 Concurrent Programming and Foundations of Operating Systems (3) (Fall) - Studies the foundation of modern operating systems and concurrent programming problems associated with these systems. Students write and test their solutions to problems. Covers problems and possible solutions encountered in the development of all modern systems. Prerequisite: 56.221.
- 56.410 Computer Graphics (Spring/even-numbered years) (3) - Presents the basic principles for design, use and understanding of graphics systems. Hardware and software components of graphics systems examined with a major emphasis on creating and manipulating graphics displays using a software graphics package; the package includes standard computer graphics algorithms. Two and three dimensional graphics, animation, color, hidden line and hidden surface algorithms studied in depth. Prerequisites: 56.221; 53.225 or 53.314 recommended.
- 56.430 Computer Architecture (Spring/ odd-numbered years)(3) - Examines design issues for modern, high-performance computer systems. Topics include bus structures, memory hierarchies, RISC and CISC instruction-set paradigms, pipelining and superscalar processor designs, microprogrammed control and input/output and bandwidth issues. Prerequisite: 56.330.
- 56.444 Introduction to Parallel Processing (Fall/odd-numbered years)(3) - Provides an overview of parallel processing, parallel architectures, design and analysis of parallel algorithms. Focuses on the development and performance evaluation of parallel algorithms on parallel architectures. Prerequisite: 56.221.
- 56.450 Compiler Construction (Spring/odd-numbered years) (3) - An introduction to the construction of compilers and interpreters. The compiler is broken down into phases of scanning, parsing, semantic analysis, optimization and code generation. Studies the relevant theory in the phases as students program a compiler. Prerequisites: 56.350 and 56.221.
- 56.471 Numerical Analysis (Alternate years) (3) - Provides a computer-oriented analysis of algorithms of numerical analysis. Topics include nonlinear equations, interpolation and approximation, differentiation and integration, matrices and differential equations. Prerequisites: 56.373, 53.322.
- 56.491 Special Topics in Computer Science (3) - Presents an area of computer science which is not available as a regular course offering. Prerequisite: Consent of the instructor.
- 56.497 Internship in Computer Science (2-12) - Provides computer science majors with an opportunity to acquire meaningful and professional on-site training and learning in computer science at an industrial, private or business workplace. Note: a student may, with departmental approval, apply a maximum of 3 credits of internship toward the fulfillment of the computer science major. Each 1 academic credit requires 40 hours of supervised work and the limit is 12 total credit hours for internships. Prerequisites: students must establish adequate course preparation for the proposed internship. Internship applications must be submitted one month
- 56.386 Concurrent Programming and Foundations of Op-

before the internship begins and must be approved by the department chairperson.

- 56.576 Networks: Configuration and Implementation (3) - Introduces students to terminology, concepts, hardware and software related to the establishment of a local network and provides hands-on experience in the procedure necessary to install both a PC and Macintosh-based local area network.

## Instructional Technology

Administered by Department of Instructional Technology

- 57.540 Technology Planning Across the Curriculum (3) - Examines a systematic process for the identification, selection, use, and evaluation of technology within the curriculum. Students create technology plans for the classroom, building and district levels. Consideration is given to a number of issues that affect the procurement and use of technology in schools. Students also choose a specific technology in which they will develop expertise for use in curriculum planning.

- 57.542 Technology Applications for the Classroom (3) - Explores the role of technology in the classroom. Special emphasis is placed on the use of technology as a mind tool to create a constructivist, higher-order thinking and learning environment. Students become proficient in a wide range of technologies and apply the instructional systems design process to all projects.

- 57.546 Research in Instructional Technology (3) - Prepares students to evaluate and conduct research in instructional technology. Students analyze research literature in instructional technology, evaluate the various methodologies used in the research process, conduct a research project, and write a research paper using a systematic approach.

- 57.550 Instructional Design (3) - Examines the systems approach for the design, development, and evaluation of instruction and training materials. Students conduct a needs assessment and instructional analysis, write objectives, develop instructional strategies, and develop a teacher's guide and student materials. Specific emphasis is given to applying instructional design techniques to the design and development of instructional products in print form.

- 57.551 Advanced Instructional Design (3) - Serves as a sequel to Instructional Design (57.550) by providing additional information and practice concerning the design of effective instruction. Course goes beyond the introductory course by elaborating on the design of instructional strategies for specific learning outcomes, techniques for writing effective test items, and procedures for formative and summative evaluation. In addition, the course emphasizes learning theory, cognitive and behavioral approaches to instruction, a comparison of instructional design models, and research evidence that supports instructional design practices.

- 57.556 Applying Theories of Learning to Interactive Technologies (3) - Focuses on the application of theoretical principles of learning and instruction to the design of

instructional materials. Topics include behaviorism, information processing models, cognitive science, memory models, constructivism, cognitive strategies, and the learning theories of a number of influential theorists. In addition, the course emphasizes learning theory, cognitive and behavioral approaches to instruction, a comparison of instructional design models, and research evidence that supports instructional design practices. Students critique commercial software and design two brief instructional modules incorporating specific principles of cognitive science.

- 57.560 Multimedia Productions (3) - Provides a survey of the major aspects of multimedia production from the user perspective. Included are hands-on experiences with hardware, software and file manipulation. Examines research and theories of multimedia as well as guidelines for the development of instructional multimedia. A course where users create and integrate media into software applications.

- 57.570 Introduction to Interactive Technologies (3) - Examines the fundamental concepts of computer-based learning and information systems. Specific emphasis is placed on the design, development, and authoring of interactive courseware using software such as Macromedia Dreamweaver, Javascript and HTML. Emerging technologies and their potential impact upon education and training are also studied.

- 57.572 Authoring Tools for Cross Platforms (3) - Acquaints students with authoring tools that may be implemented on Macintosh and PC platforms. Writing code for multimedia and hypermedia applications is emphasized. Software, such as Macromedia Authorware and Macromedia Director, is used to develop computer presentations. Applications for use in kiosks and for training are reviewed and developed with emphasis on good design and programming techniques.

- 57.573 Authoring Tools for Windows (3) - Provides a careful, in-depth study of various authoring systems and authoring tools in a Windows environment. Software packages, such as Toolbook, are used to develop computer projects. Specific areas of emphasis include types of authoring software, generalized authoring options, specific techniques for planning and creating instruction using the authoring tools, and principles of effective design of computer-based instruction.

- 57.574 Authoring Tools for Networks (3) - Provides study of software and systems for web environments. Software such as Cold Fusion is used to develop database web projects. Areas of emphasis include types networks, database software and database design.

- 57.575 Managing Multimedia Projects (3) - Provides a culminating experience in the Instructional Technology curriculum. Students are teamed together to apply concepts and skills learned in previous courses to simulate a hypothetical business environment. Student teams use a systems approach to design, develop, and evaluate a comprehensive interactive computer-based multimedia project.

- 57.580 Instructional Applications of Internet (3) - Helps

educators integrate the Internet into the curriculum to improve teaching and learning. Students learn basic and advanced concepts of the World Wide Web and the tools used to access Web sites, construct a web page, learn the educational applications of web sites, and web site management. Students learn techniques for gathering, organizing and managing Internet information, apply Internet multimedia applications to the classroom, and explore emerging Internet technologies, issues and trends.

57.584 eTraining Strategies (3) - Prepares students with knowledge, skills, and tools in the area of distance communications. Topics covered include communications, technology, delivery systems, instructional development for distance education, and program quality assessment.

57.585 eLearning Concepts and Techniques (3) - Provides students with knowledge and experiences in designing, developing and delivering e-learning courses. This course teaches how to design corporate-based web instruction for delivery over a corporate intranet or internet. Students will experience participating in an instructional event as an on-line learning. Students will also identify the fundamental elements that make web-based instruction effective.

57.590 Graduate Internship (3) - Allows students to put into practice the theories that they have learned in previous courses. Each internship must last at least 6-12 weeks in duration, be directly related to the general content of the master's program, and be supervised by a professional in the multimedia field.

57.599 Master's Thesis (6) - Consists of an independent scholarly investigation in which the student designs, develops, implements, and evaluates a brief instructional module to address a specific audience. Under the direction of a faculty committee, the student identifies a performance problem in an audience of interest, and works with a subject matter expert to design and produce instruction on a particular topic. The instruction is later implemented with the target audience and evaluated for its effectiveness. The student then makes the necessary revisions based on the evaluation data.

## **(58) Electrical and Electronic Engineering Technology**

Administered by Department of Physics and Engineering Technology

58.101 Introduction to Electrical and Electronics Engineering Technology (EET) (1) - History of engineering and technology, electrical and electronic engineering technology (EET) as a career, technology areas within EET, organizational structure of industries, oral and written communication skills, review of mathematical skills, graphical representations of data, use of scientific calculator and personal computer, electronic instruments, industrial automation, seminars by engineering technologists, and visits to local industries. One hour lecture per week.

58.180 Computer Aided Design and Engineering Graphics

(3) - Provides hands-on introduction to computer-aided design with an emphasis on basic engineering graphics. Culmination of course is a team design and construction project.

58.141 Electric Circuit Analysis (4) - Electric circuit analysis including computer simulation and hands-on laboratory experience using modern electronic equipment. Resistance, inductance and capacitance. Analysis of dc and ac circuits including network theorems, R-L and R-C transients, and R-L-C resonance. AC power, power factor and three-phase power. Three hours lecture and three hours lab per week.

58.321 Manufacturing Processes (3) - Studies the various types of manufacturing processes and the design of parts and assemblies to insure their manufacturability. Includes PCB artwork and fabrication, process design and evaluation using SPC techniques, quality control, reliability and visits to area manufacturing facilities. Two hours lecture and three hours lab per week.

58.231 Electrical Machines and Power Systems (4) - Fundamentals of electrical machines, transformers and power systems. DC generators and motors, ac power, three-phase circuits, single-phase and three-phase transformers, three-phase induction motors, synchronous generators and motors, single-phase motors, stepper motors, electronic control of motors, and electric utility power generation, transmission and distribution. Three hours lecture and two hours lab per week.

58.300 Career Orientation (1) - Studies all aspects of seeking employment including interviewing, resume writing and choosing appropriate jobs for the cooperative education experience. One hour lecture per week.

58.331 Linear Signals and Systems (2) - Introduces the theory of linear signals and systems, including functional representations, spectra, linear filters, transforms, digital sampling, discrete signals, digital filters and state variables. Two hours lecture per week.

58.241 Electronic Instrumentation and Data Acquisition (3) - Design and application of electronic instrumentation systems. The course is centered on understanding sensors and transducers, signal conditioning and transmission methods and application of sensors and transducers to real world situations. Use of microcomputer systems for data acquisition, processing and control. Two hours lecture and three hours lab per week.

58.380 Cooperative Education in Industry I (0) - Provides an on-the-job professional experience in an industrial setting.

58.431 Industrial Process Control (3) - Fundamentals of open-loop and closed-loop control, feedback control concepts, controller design, process control using microcomputers, PLCs, sensors and transducers, instrument control and supervisory control. Two hours lecture and three hours lab per week.

58.441 Communications Systems (3) - Presents the theory and application of modern communications systems, including types of modulation, noise, multiplexing, multiple access and digital signaling. Use of modern soft-

ware package for communication systems design and analysis. Two hours lecture and three hours lab per week.

58.451 Digital Signal Processing (3) - Fundamental principles associated with the processing of discrete-time signals. Common applications such as waveform generation, FIR and IIR digital filtering, and DFT and FFT-based spectral analysis and filtering. Architecture, instruction set and hardware and software development tools associated with a fixed-point general-purpose DSP VLSI processor. Two hours lecture and two hours lab per week.

58.461 Radio Frequency Effects and Measurements (4) - Electronic instrumentation and techniques for measurement at radio frequencies of such quantities as power, impedance, standing wave ratio, frequency, voltage and current. Receiver and antenna measurements, Smith charts, impedance matching and radio frequency shielding. Two hours lecture and two hours lab per week.

58.480 Cooperative Education in Industry II (0) - Provides on-the-job professional experience in an industrial setting.

## EDF (60) Educational Studies

Administered by Department of Educational Studies and Secondary Education

60.201 Field Studies in Education I (1) - Fifteen hour field experience to observe various teaching-learning situations. Weekly on-campus seminars.

60.204 Educational Computing and Technology (3) - Introduction to computer technology and the school setting that utilizes computers. Prerequisite: 45 semester hours.

60.205 Career Development and Life Planning (3) - Provides students with career information, values clarification and decision-making skills needed to develop sensitivity to these issues in light of the increasing complexity of the occupational experience.

60.251 Psychological Foundations of Education (3) - A systematic analysis of theories of human motivation, development and learning related to the teaching-learning process. Psychological systems are compared and evaluated in terms of their philosophical bases, ideological commitments and as criteria for the development of models for educational policy and practice.

60.291 Principles of Teaching (3) - An introduction to the teaching process. Various instructional techniques, methodologies and approaches are explored. Topics include: developing instructional objectives, sequencing learning activities, applying the various taxonomies, conducting micro-teaching, discipline strategies, questioning techniques and mastery teaching. Class term project includes unit lesson plan and evaluative instrument. Prerequisites: 60.201, 60.251.

60.301 Field Studies in Education II (1) - Thirty hour field experience with involvement in a school setting. Develop lesson plans and teach two lessons under supervision. Produce reflective journal. Remaining time spent in weekly campus class seminars.

60.302 Research Literacy (3) - Provides an introduction to research methods and techniques. Gives the student the basic understanding to be a better consumer of research, to be more aware of the value of research and to be able to carry out beginning-level research projects.

60.311 Classroom Measures and Assessment (3) - Reviews principles of evaluation; grading; representative standardized tests; vocabulary of measurement, test construction and interpretation; informal and formal measurement in the cognitive, affective and psychomotor areas and alternative forms of assessment. Prerequisite: 45 semester hours, 60.291.

60.350 Instructional Design Systems (3) - For preservice teachers and others who will create a community of learners integrating technology into the K-12 classroom. Uses hands-on experiences, virtual meetings, web-based resources to develop classroom activities to create a virtual learning community. Prerequisite: 30 credits.

60.351 Virtual Learning Communities (3) - For preservice teachers and others who will act as learning mentors and instructional designers. Uses hands-on experiences with the aid of cognitive strategies to develop classroom activities that promote how students know and how instructional planning can be better designed for learning. Prerequisite: 30 credits.

60.393 Social Foundations of Education (3) - An integrated multidisciplinary study of education focusing on the relationships among social conditions, social values and educational policies. The course focuses on those aspects and problems of society that need to be taken into account in determining educational policy, especially as this policy concerns the social role of the school.

60.406 Multicultural Education (3) - Studies school situations that reflect the cultural diversity of the nation and the world in their social and school goals and curricular and instructional aims and practices. Offers strategies for accommodating to the cultural norms, values, attitudes, behavior, language and learning styles of students and for teaching all students to understand and respect their own and other cultures.

60.416 Computers in the Curriculum (3) - The goal of this course is to provide curricula reforms that emphasize technology as an integral component of instruction. This instruction is supported by technology tools helps students construct knowledge and helps teachers create opportunities for more effective, meaningful, integrated learning. This course provides the resources to locate relevant instructional materials to design a curriculum rich in emerging technologies.

60.427 Classroom Management and Effective Discipline (3) - Focus on strategies for effective discipline and classroom management. Methods of planning for the beginning of the year and for establishing an effective classroom atmosphere that promotes learning throughout the year are reviewed. Current models and major theories of discipline are reviewed and evaluated. Prerequisites: 60.251, 60.291, 60.201, 60.301 .

60.431 Independent Study (I-3) - Requires consent of the department chairperson to schedule.

- 60.441, 60.442, 60.443 Workshop in Education (1-6) - Studies selected areas of education including research by individual students in a special teaching field.
- 60.451 Pupil Personnel Services in the Public School (3) - Comprehensive view of pupil personnel services in elementary and secondary schools; school attendance, school health programs, pupil transportation, psychological services, guidance services.
- 60.497 Teaching in Education: First Experience (6) - The secondary student teaching assignment is determined by the student's area of specialization. Provides opportunities for direct participating experiences. Places students in classrooms with public or private school teachers. The student's major determines their assignment: K-6 - one experience in a primary level and one experience in an intermediate level of a public school; N-K-3 - one experience in a preschool situation and one in a primary level of a public school or two experiences in a primary level of a public school.
- 60.498 Teaching in Education: Second Experience (6) - The secondary student teaching assignment is determined by the student's area of specialization.
- 60.501 Major Philosophies of Education (3) - Interprets modern educational problems and trends in the light of philosophical viewpoints; study of primary sources of concepts and philosophies which have influenced and are influencing education.
- 60.502 School and Society (3) - Examines effects of social class, family, and community pressures and changing patterns and standards of life in our society on the school program. Fosters understanding of these pressures and patterns so that the teacher can work effectively to encourage the good and reduce the harmful impacts of social forces in relationships of children.
- 60.503 History of American Educational Theory (3) - Historical foundations of American educational theory with emphasis on individuals and schools of thought which have influenced and are influencing education in America.
- 60.504 Technology for Teachers (3) - A hands-on introduction to the use of technology in the public school classroom. Teachers will be introduced to the computer, computer-related technologies, communication technologies, and new and emerging audio-visual technologies in creating technology learning environments. Consideration will be given to the use of technology as a communication medium. Teachers will learn to use Instructional Systems Design models in the planning, delivery and evaluation of technology practices in the schools.
- 60.505 Comparative Education (3) - Educational ideas and practices of various countries are examined for their impact upon our culture and education. Particular attention is given to the relationship of European educational programs to the American philosophy and practice of public education.
- 60.506 Multicultural Education (3) - Examines problems of the urban educational system. Emphasizes growth of sensitivity to the disadvantaged youngster, in-depth examination of current research findings in areas studied, teaching strategies, and resources and approaches to resolve major problems. Discussion of polarization in critical problem areas.
- 60.507 Using Newspapers in the Classroom (3) - Activity-centered course that provides an orientation to the use of the newspaper in various subject areas. Provides opportunities for the development of learning experiences.
- 60.512 Educational Media and Software (3) - Advanced study of the role of media in the education process. Includes critical assessment of that role, selection of equipment and materials for optimum utility, a review of contemporary literature in the field, and a production component involving advanced work in television, transparencies, slide-tape, and computer-assisted instruction.
- 60.514 Home, School and Community Relations (3) - Introductory course in public relations with special reference to elementary school. Develops a philosophy of partnership between home, school, and community. Considers principles, attitudes, and techniques to encourage community sharing in the planning of and assuming responsibility for good schools.
- 60.516 Computers in the Curriculum (3) - The goal of this course is to provide curricula reforms that emphasize technology as an integral component of instruction. This instruction is supported by technology tools helps students construct knowledge and helps teachers create opportunities for more effective, meaningful, integrated learning. This course provides the resources to locate relevant instructional materials to design a curriculum rich in emerging technologies.
- 60.520 Guidance and Counseling for Exceptional Children (3) - Studies needs of exceptional children in public schools (including the academically talented); guidance and counseling techniques for teachers and guidance counselors in meeting those needs; guidance and counseling for exceptional children related to the total guidance counseling program.
- 60.522 Internet for Teachers (3) - This is an introductory Internet course for educators who would like to use the Internet as a resource for the classroom. Students will be introduced to the fundamental concepts of the World Wide Web and to the tools to access web sites. Participants will become actively involved as they explore the Internet and share ideas for practical applications in the classroom. Students will create a portfolio of Internet and share ideas for practical applications in the classroom. Students will create a portfolio of Internet resources and materials for subsequent use in the classroom. Other activities include: techniques for navigation and on-line searches; evaluating Internet resources; making and managing "hotlists;" and downloading and maintaining Internet software and graphics resources. Teachers will have the opportunity to customize the knowledge in this course to meet their particular needs and the needs of their students. Prerequisites for this course are one introductory computer course at the undergraduate or graduate level. This course will be

- taught on Macintosh computers. In order to complete online assignments, students are expected to have personal access to the Internet or be able to use the University Macintosh labs outside of normal class hours.
- 60.527 Classroom Management and Effective Discipline (3) - Focuses on theories of effective discipline and classroom management. Methods of planning for the beginning of the year and for establishing an effective classroom organization to promote appropriate behavior throughout the year are reviewed. Current models and major theories of discipline are reviewed and evaluated.
- 60.530 Guidance in the Elementary Schools (3) - Covers concepts and techniques of the guidance process in the elementary school, behavioral and developmental problems, and releasing creative capacities of children.
- 60.532 Adapting Teaching Strategies to Learning Styles and Multiple Intelligences (3) - This course provides students with ideas, techniques and approaches to using different learning styles and Multiple Intelligences Theory in the teaching/learning processes. The scope, sequence and substance of the course emphasizes hands-on activities, problem solving, class discussion, group activities and web-based research.
- 60.533 Measurement and Evaluation in the Elementary School (3) - Emphasizes construction, administration, and interpretation of group tests of intelligence, achievement, aptitude, and personality in elementary schools.
- 60.550 Problems in Guidance and Counseling (3) - Covers philosophy of guidance; history of the guidance movement; guidance needs of children and adolescents; methods of gathering data; nature of school records; interpretation of test results and inventories; use of occupational information and data; interviewing and counseling techniques.
- 60.551 Techniques in Counseling (3) - Focuses on theories, principles, and practices of counseling; development and use of counseling materials such as test results, educational information, and other pertinent materials.
- 60.552 Organization and Supervision of Guidance (3) - Examines types of guidance organizations used in schools and their effectiveness in providing for good guidance.
- 60.553 Group Processes in Guidance (3) (Experimental) - Enables learners to acquire a working knowledge of the group process and strategies for facilitating communication in groups. The nature and function of groups will be explored. Through theory and practice, teachers learn and practice skills in leading groups, empathic listening, discussion and decision-making. Teachers also learn to enhance students' self-awareness and self-esteem in a group setting.
- 60.561 Measurement and Evaluation in the Secondary Schools (3) - Examines construction, administration, and interpretation of group tests in intelligence, achievement, aptitude, and personality in secondary schools.
- 60.565 Advanced Foundations of Education (3) - This course will provide a systematic analysis of theories of human development, learning and motivation related to the teaching and learning process. Students will investigate and evaluate psychological principles and theories and their implications for classroom decision making. Themes underlying effective educational practices will be addressed, including interaction, cognitive processes, relevance, classroom climate, challenge, expectations and diversity.
- 60.573 Introduction to Educational Administration (3) - Focuses on examination of the functions and tasks of educational administration. Issues include the evolving school setting; the meaning, development, and work of school administrators; educational systems analysis; school personnel administration; administrative and organizational behavior; and career ladders in educational administration.
- 60.576 School Law and Finance (3) - Considers limitations established by local, state, and federal laws relating to the interactions of school personnel. Special attention to recent changes resulting from judicial decisions. Covers fiscal control of education with emphasis on local budgetary problems.
- 60.577 Educational Research for Supervision (3) - Considers development of ability to read and interpret educational research and apply it to a school situation. Conclusions concerning curriculum content and teaching strategies designed for the improvement of the educational process are emphasized.
- 60.578 Group Processes in Supervision (3) - Emphasis on group processes, communication in the group, and organizational goals related to educational supervision. Focuses on knowledge of and practice in laboratory experiences in group processes and applicability to supervision. Experiences provide opportunities for experimenting with and evaluating leadership skills and promoting creativity and initiative.
- 60.579 Supervision of Curriculum and Instruction (3) - Examines objectives, techniques, and materials of staff supervision; defines the supervisory function directed toward the improvement of instruction with emphasis on the interrelationships between the humanistic aspects of education and democratic administrative behavior; studies roles of contemporary supervision with respect to educational quality assessment, interpersonal relations, and the catalytic role of the supervisor.
- 60.580 Practicum in Supervision of Curriculum and Instruction (3) - Field-based practicum experience that places the candidate for a Curriculum and Instruction N-12 Supervisory Certificate in a cooperative relationship with an individual in a school setting responsible for the overall planning, coordination, implementation, and evaluation of a curricular and instructional program. Competency-based experiences discussed in a weekly seminar. Evaluation of the candidate's performance based on achievement of specified competencies.
- 60.581 Independent Study in Education (I-6) - Provides an opportunity for public school teachers to pursue in-service projects in cooperation with a faculty adviser. The teacher submits a "learning contract" to an adviser designated by the department chairperson. Contract in-

cludes details of the academic goals, descriptions of the project in its relation to the goals and of a proposal for a final report, a reading list, and the proposed credit. Permission to register for the course granted upon approval of the contract. Evaluation based on the written report and an examination by a committee appointed by the adviser and/or department chairperson. Students may register at any suitable time; the duration of the experience is flexible.

60.583 Seminar in Education (1-6) - Provides the opportunity for a group of teachers engaged in a common in-service project to use the resources of the university and its faculty. A "learning contract" similar to that of 60.581 is submitted by the group as a basis for permission to register. Papers relate to aspects of the project and to the literature designated in the contract. Discussion and criticism in seminar meetings under the direction of a faculty member. Evaluation is based on the seminar reports and a final comprehensive written report by the student.

60.584 Curriculum and Instructional Theory, Design and Development (3) - Competency-based course consisting of elements that provide a base in relevant theory associated with the activity of curriculum development. A review, critique, and evaluation of current theoretical positions and design methodology are an integral part of the course.

60.585 Curriculum and Instructional Evaluation (3) - Competency-based course consisting of elements providing a base for the student in current theory and practice in the evaluation of school curriculum and instruction. Reviews, critiques, and application of current thinking and practice in curriculum evaluation are an integral part of the course.

## ELE (62) Early Childhood and Elementary Education

Administered by Department of Early Childhood and Elementary Education

60.522 Internet for Teachers (3) - An introductory course for teachers who would like to use the Internet as a resource for the classroom. Covers fundamental concepts of access to and using the World Wide Web, sharing ideas for practical classroom applications, evaluating Internet resources, and downloading and maintaining Internet software. Prerequisite is an introductory computer course at the undergraduate or graduate level. Taught on Macintosh computers and completing on-line assignments requires personal access to the Internet or ability to use university Macintosh labs outside of normal class hours.

62.121 Introduction to Early Childhood Education (3) - Examines the historical and philosophical foundations of early childhood education. Analyzes current trends and practices for teaching children from birth to age 6.

62.302 Teaching of Science in the Elementary School (3) - Emphasizes the major methods and materials used in elementary school science. Prerequisite: 64 semester

hours.

62.304 Environmental Education for the Elementary School Teacher (3) - Provides learning experiences for the elementary school level in environmental education programs.

62.310 Teaching Fine Arts in the Elementary School (3) - Provides competencies in the selection and implementation of materials and procedures for teaching literary, visual and performing arts to elementary school children. Emphasizes comprehension and integration of fine arts into all areas of the school curriculum. Prerequisite: 45 semester hours.

62.322 Seminar in Learning Experiences with Young Children (3) - Outlines physical, mental, emotional and social levels of children from birth to age 8, with attention to environmental factors that foster child growth. Examines prenatal, infant-toddler, preschool and kindergarten programs to meet the needs of this age child and to provide the background of experience needed for later ventures into reading, art, arithmetic, science, social studies, music, literature, physical education and health and safety. Prerequisites: Psychology 48.101, 48.211.

62.371 Teaching Reading in the Elementary School (3) - Examines developmental reading from readiness through sixth grade. Prerequisite: 45 semester hours.

62.373 Diagnostic and Inclusionary Practices (3) - Presents diagnostic and remedial procedures emphasizing both standardized and informal techniques. Prerequisite: 62.371.

62.376 Language Experiences for Children (3) - Explores the language development of children and factors that influence skill in effective communication development from nursery school through sixth grade. Provides a background for students in language arts and literature for children. Prerequisite: 45 semester hours.

62.389 Individualized Instruction Activities in the Elementary School (3) - Emphasizes procedures for helping individuals learn the informal school concept and rearranging the elementary classroom into an efficient and effective learning area with emphasis on a language arts center, mathematics center, science centers and social studies centers. Prerequisite: 45 semester hours.

62.390 Teaching Social Studies in the Elementary School (3) - Emphasizes methods and materials appropriate for teaching elementary school social studies in contemporary society. Prerequisite: 64 semester hours.

62.391 Teaching Language Arts in the Elementary School (3) - Emphasizes methods and materials designed to help elementary school children develop communication skills for today's complex society. Includes all areas of a modern language arts curriculum. Prerequisite: 64 semester hours.

62.398 Teaching Mathematics in the Elementary School (3) - Outlines mathematical methods, materials, understandings and attitudes essential in the teaching of contemporary programs in the elementary school. Prerequisite: 64 semester hours.

- 62.400 Workshop in Teaching Mathematics in Early Childhood and Elementary Education (I-6) - Presents a workshop format to provide individual or group study of problems concerned with teaching mathematics at early childhood and elementary levels.
- 62.410 Methods and Materials in Early Childhood Education I (3) - Provides teachers with a workshop experience in infant daycare centers and nursery schools. Provides methods and materials that teachers can use and construct in their centers and classrooms. Examines theories of Bruner, Piaget, Froebel, Montessori and Vygotsky. Prerequisites: 62.121, 62.322.
- 62.420 Methods and Materials in Early Childhood Education II (3) - Provides teachers with a workshop experience in infant daycare centers and nursery schools. Provides methods and materials that teachers can use and construct in their centers and classrooms. Examines theories of Bruner, Piaget, Froebel, Montessori and Vygotsky. Prerequisites: 62.121, 62.322.
- 62.431 Independent Study in Elementary and Early Childhood Education (I-3) - Individual projects in education. Requires consent of the department chairperson.
- 62.450 Methods of Teaching Foreign Languages in the Elementary School (3) - Examines factors influencing second language acquisition and addresses a variety of strategies designed to teach foreign languages in the elementary school. Special focus on integrating the foreign language syllabus within the elementary school curriculum. Culture, art, music and dance included. Prerequisites: 60.291, 200-level foreign language or equivalent.
- 62.494 Teaching in Education: First Experience (6) - The student teaching assignment is determined by the student's area of specialization. Provides opportunities for direct participating experiences. Places students in classrooms with public or private school teachers. The student's major determines their assignment: K-6 - one experience in a primary level and one experience in an intermediate level of a public school; N-K-3 - one experience in a preschool situation and one in a primary level of a public school, or two experiences in a primary level of a public school.
- 62.495 Teaching in Education: Second Experience (6) - see 62.494
- 62.496 Practicum in Early Childhood Education, Elementary Education II (I-6) - Individually prescribed course of study and activity-based learning and practice teaching. Previous experience and academic achievement reviewed. Consent of program coordinator and department chairperson required. Prerequisite: 64 credits and complete packet.
- 62.497 Teaching Literacy and Literature in Diverse Classrooms (3) - Explores literacy development to create a positive literacy learning environment for diverse learners.
- 62.510 Methods and Materials in Early Childhood Education I (3) - For in-service teachers and graduate students. Study of selected areas in early childhood education.
- Individual or group study of subjects of interest or concern in teaching.
- 62.516 Computers in the Curriculum (3) - Provides curricula reforms that emphasize technology as an integral component of instruction. Helps teachers create opportunities for more effective, meaningful, integrated learning and provides resources to locate relevant instructional materials to design a curriculum rich in emerging technologies.
- 62.520 Methods and Materials in Early Childhood Education II (3) - See course description for 62.510.
- 62.521 Elementary School Curriculum (3) - Studies problems related to development, experimentation, and improvement of curriculum practices in the elementary school.
- 62.522 Curriculum Trends in Early Childhood Education (3) - Studies the changing goals and the developing programs children birth through age eight required to meet the needs of children who enter school with a variety of experiential backgrounds.
- 62.523 Practices in Teaching the Young Child (3) - Examination of current practices in teaching the young child with emphasis on the developmental aspects of childhood as they relate to the school program.
- 62.524 Knowledge and Curriculum (3) - A study of the place of knowledge in developing a curriculum. The emphasis is on content as it is influenced by the Pennsylvania Content Standards and innovative practices in teaching and learning.
- 62.525 Current Practices in Elementary School Science (3) - Studies the problems resulting from the increased interest of children in science and the need for science instruction in the elementary grades; methods and materials for nurturing these interests and for implementing science instruction within the limits of the interests of children are presented and evaluated.
- 62.526 Methods and Materials in Science and Mathematics (3) - Offers an approach to curriculum in which mathematics and science content, skills and methods of instruction are integrated. Particular attention given to creative, integrated activities and learning situations that range from individual inquiry to group interactions.
- 62.527 Social Studies in the Elementary School (3) - Examines contemporary trends and current research in the disciplines of the social sciences as a basis for development of a conceptual framework for a social studies program.
- 62.528 Language Arts in the Modern School (3) - Studies problems related to instruction in various aspects of the language arts; place of the language arts in the curriculum; current research and its practical application.
- 62.529 Literature for Children in the Elementary Grades (3) - Surveys ways children may encounter literature and methods that are effective in the encounter. Students become acquainted with children's books, work with children in a storytelling experience, discover ways other than through reading by which children may experi-

ence literature.

62.530 Awareness of Environmental Education Problems for the Elementary Grades (3) - Helps classroom teacher organize environmental education activities. Areas of content include problem-solving activities, material sources, the use of resources, curriculum building, development of an awareness of environmental problems, and possible solutions to them. Camping and a camp fee are required.

62.531 Environmental Education Awareness Activities and Materials for the Elementary School (1-3) - Opportunity for students to broaden their experiences in environmental education. Camping and a camp fee are required. Prerequisite: 62.530

62.533 Values Clarification in the Elementary School (3) - Primarily for elementary education students. Emphasizes the philosophy and composition of values clarification as it applies to the elementary school child. Practical and theoretical aspects stressed as well as techniques for helping children build a value system by which they can live. Emphasis on methods which aid the teacher in becoming aware of the emotional needs of children, humanizing of the education process, and improvement of working and learning relationships with others.

62.537 Methods and Materials in Language Arts and Social Studies (3) - Offers an approach in curriculum in which social studies and language arts content, skills and methods of instruction are integrated. Particular attention given to creative, integrated activities and learning situations that range from individual inquiry to group interactions.

62.539 Current Topics in Elementary Education (3) - Investigates current thinking and research in aspects of elementary education.

62.581 Independent Study in Elementary Education (1-6) - Comparable to 60.583.

62.583 Seminar in Elementary Education (1-6) - Comparable to 60.583.

62.590 Current Research and Development in Early Childhood Education (3) - Examines recent literature and research in early childhood education, prenatal through age 8, characteristics of the learner, learning environment, learning materials, and innovative programs. Departmental paper and/or curriculum projects are initiated in this course.

62.591 Learning and Development of the Young Child (3) - Surveys child development and its relationship to the early school years; the development of the young child from prenatal through age eight.

62.592 Identification and Prescription of the Needs of Young Children (3) - Focuses on techniques of identifying the physical, emotional, social, and mental needs of young children and in developing appropriate prescriptive procedures.

62.593 Organization and Administration of Educational Programs for Young Children (3) - Studies the various pro-

grams in early childhood education with emphasis on the expansion and administration with regard to the selection of personnel, evaluative techniques, and curriculum procedures, school law, finance, and other appropriate subjects.

62.594 Practicum in Early Childhood Education (6) - Individually prescribed course of study and activity-based learning and practice teaching. Previous experience and academic achievement reviewed. Practicum proposal required, and consent of program coordinator and department chairperson required.

62.595 Individualized Instruction - Principles and Practices for the Classroom (3) - Analyzes practices, principles, and procedures for individualizing instruction. Experiences include procedures for adapting conventional instructional modes to individualized settings.

62.596 Practicum in Early Childhood Education (3) - see 62.594.

## (63) Reading

Administered by Exceptionality Programs

63.540 Introduction to the Teaching of Reading (3) - Focuses on components of a balanced literacy program; designed to develop a knowledge base and instructional competence with literacy instruction for inclusive classrooms.

63.541 Reading Assessment and Intervention (3) - Focuses on informal and formal assessment techniques with an emphasis on using assessment to design appropriate intervention programs and techniques; topics include miscue analysis, running records, informal reading inventories, and standardized testing.

63.543 Reading Practicum I (3) - Students tutor struggling readers who experience problems in one or more of the following areas: decoding, fluency, comprehension, or study skills. Parent involvement and parent training is included as part of the tutoring process. Prerequisites: 63.540, 63.541, 63.548 plus consent of program coordinator.

63.544 Reading Practicum II (3) - Students work in teams to teach small groups of struggling readers in an intensive, 3-week summer tutorial program. Focuses on designing instruction and developing materials to match children's reading levels and learning styles. Prerequisites: 63.540, 63.541, 63.543, 63.548, plus consent of program director.

63.545 Organization and Administration of Reading Programs (K-12) - (3) - For classroom teachers, reading specialists, and resource room specialists who are involved with a school district's reading program; emphasizes a working knowledge of certification requirements, job descriptions, guidelines for programs funded through federal or state agencies, resources for exemplary reading programs, program evaluation, and parent involvement.

63.546 Reading in the Content Areas (3) - Presents theory and related teaching strategies for content area instruc-

tion in grades 4-12; topics include the reading process, textbook evaluations, and strategies for improving comprehension, vocabulary, and study skills.

- 63.548 Reading Instruction for the At-Risk Learner (3) - Emphasizes methodology related to improving the reading skills of at-risk learners; focuses on developmentally appropriate practices, developmental stages of word knowledge, adapting instruction for diverse learners, and teaching ESL children.
- 63.549 Teaching Reading to the Hearing Impaired/Language Handicapped Child (3) - Principles, practices, methods, and materials of teaching reading to hearing impaired/language handicapped individuals; awareness of research and clinic practices which can be applied to classroom setting.
- 63.550 Literature, Literacy and Culture (3) - Explores the role of literature in improving students' reading, writing, and language growth in grades K-12. Focuses on the role of multicultural literature in promoting cross-cultural understandings in a student-centered language arts program. Specific topics include selecting literature, developing thematic units, organizing the classroom, implementing literature circles, and evaluating students' literacy growth.
- 63.551 Early Literacy Learning (3) - Inservice teachers learn how to implement principles and practices of guided reading in K-3 classrooms. Focuses on conducting ongoing literacy assessments, organizing instruction, developing literacy centers, using leveled texts, and meeting the needs of all learners in the classroom.
- 63.552 Reading and Writing Across the Curriculum (3) - This course is designed to provide classroom teachers (grades 4-8) with current theory and practice in integrating literacy instruction across the curriculum. Topics include designing a curriculum framework for integrated instruction, fostering discussion in a reading-writing classroom, connecting reading and writing to the content areas, designing assessments with learners in mind and meeting state standards.

## TCH (65) Secondary Education

Administered by Department of Educational Studies and Secondary Education

- 65.351 Teaching Communication in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.352 Teaching Mathematics in the Secondary School (Spring) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.353 Teaching Science in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.358 Teaching Foreign Language in the Secondary School (Spring) (3) - Prerequisites: 60.201, 60.251, 60.291,

60.301, 60.343, junior standing in an area of concentration in secondary education.

- 65.355 Teaching Social Studies in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education
- 65.358 Teaching Foreign Language in the Secondary School (Spring) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.374 Teaching Reading in Academic Subjects (3) - Understanding techniques for developing reading skills applicable to the secondary school. Emphasis on readiness, comprehension, silent reading and oral reading through secondary school academic subjects. Prerequisite: 45 semester hours.
- 65.411 Seminar in Secondary Education (3) - Activities center around concerns and problems encountered in secondary education. The range of activities is determined by individual need and by levels of professional competency including diagnosis, mutual development of objectives and self evaluation.
- 65.431 Independent Study in Secondary Education (1-3) - Requires consent of department chairperson 79.312 Internship in Education (1-15) - A work study program in an education-related setting applicable to fulfilling free electives in teacher education degree.
- 65.530 Curriculum Development and Instructional Strategies in the Middle and Junior High Schools (3) - Inquires into the role of early secondary education by analyzing historical trends, curricular patterns, instructional designs, and personnel structure of this organization unit. Emphasis on teacher behavior, student values and attitudes, and instructional designs peculiar to junior high, middle, and intermediate schools.
- 65.560 Development of the Secondary School Curriculum (3) - Problems related to development, experimentation, and improvement of curriculum practices in the secondary school.
- 65.571 Evaluating Teaching in Middle and Secondary Schools (3) - Improvement of instruction through self analysis. Micro-teaching techniques, planning dimensions, self-appraisal techniques. Designed for teachers with special reference to the work of cooperating teachers.
- 65.581 Independent Study in Secondary Education (1-6) - Provides an opportunity for public school teachers to pursue in-service projects in cooperation with a faculty adviser. The teacher submits a "learning contract" to an adviser designated by the department chairperson. Contract includes details of the academic goals, descriptions of the project in its relation to the goals and of a proposal for a final report, a reading list, and the proposed credit. Permission to register for the course granted upon approval of the contract. Evaluation based on the written report and an examination by a committee appointed by the adviser and/or department chairperson. Students may register at any suitable time; the du-

ration of the experience is flexible.

65.583 Seminar in Secondary Education (1-6) - Provides the opportunity for a group of teachers engaged in a common in-service project to use the resources of the university and its faculty. A "learning contract" similar to that of 60.581 is submitted by the group as a basis for permission to register. Papers relate to aspects of the project and to the literature designated in the contract. Discussion and criticism in seminar meetings under the direction of a faculty member. Evaluation is based on the seminar reports and a final comprehensive written report by the student.

65.597 Graduate Practicum (6) - This is a six-credit, 16 week student teaching experience that is part of the secondary certification track of the curriculum and instruction master's program. It includes all of the required INTASC standards and the framework for teaching and learning now required by both the National Council of Accreditation of Teacher and the Pennsylvania Department of Education. Required for teacher certification.

## **(67) Military Science**

Administered by Academic Affairs

67.110 Introduction to Military Science (1) - Provides an overview of the organization of the ROTC program. Introduces skills such as rappelling, marksmanship, military customs, preparing military correspondence, and practical field training. One hour class per week, 12 hours laboratory time per semester.

67.120 Introduction to Military Issues (1) - Provides a background in basic skills essential to leaders. Skills may include marksmanship, tactical movement, first aid, and communication skills. \*One hour class per week, 12 hours laboratory time per semester.

67.210 Applied Leadership and Management I (1) - Provides an overview of the Army rank structure and a specific survey of the junior officer's duties and responsibilities within that rank structure. Practical training consists primarily of advanced land navigation skills as well as rappelling and practical field training. Two hour class per week, 12 hours laboratory time per semester.

67.220 Applied Leadership and Management II (1) - Presents the fundamentals of small unit leadership and mission planning techniques, to include the reverse planning process and problem-solving techniques. Students learn through case studies how to evaluate different leadership styles and techniques. Two hour class per week, 12 hours laboratory time per semester.

67.230 ROTC Basic Camp (4) - Sophomore summer semester course offered in lieu of the Basic Course for students who want to enter the Advanced Program. The camp is six weeks in duration and students are paid at the rate of half the basic pay for a second lieutenant.

67.310 Advanced Military Science I (3) - Provides a detailed study of the leadership techniques and the principles introduced in 67.220. Course places students in role model situations to provide first-hand experience in

problems of small unit leadership. One 3-hour class per week, 12 hours laboratory time per semester.

67.320 Theory and Dynamics of the Military Team (3) - Practical application of the skills learned in 67.310. Students learn how to apply planning and management skills properly in conjunction with small unit tactics. One 3-hour class per week, 12 hours laboratory time per semester.

67.330 ROTC Advanced Camp (6) - A 35-day practical application and evaluation phase required of each cadet prior to commissioning. Advanced camp places cadets in leadership positions where they must put into practice the techniques learned on campus in both tactical and nontactical situations.

67.410 Advanced Leadership and Management I (3) - Presents advanced leadership and management skills required of a manager in a military environment. Students perform roles in management of a military organization using skills in administration, training, conduct of meetings, briefings, and logistics.

67.420 Advanced Leadership and Management II (3) - Acquaints students through a series of case studies and role playing simulations with the high ethical standards required of a manager and leader. Students learn the basic procedures of military law and their application in a military environment. Students continue to perform roles in management of a military organization, using skills developed in prior military science courses. One 3-hour class per week, 12 hours laboratory time per semester.

## **SPE (70) Special Education**

Administered by Department of Exceptionality Programs

70.101 Introduction to Exceptional Individuals (3) - Reviews all major areas of exceptionality (visually impairments, mental retardation, hearing impairments, communication disorders, behavior disorders, learning disabilities) and acquaints the student with social, sociological, psychological, medical, historical, legal, economic and professional aspects of these conditions. Reviews current research and the latest techniques for facilitating meaningful interactions with these individuals.

70.202 Technology for Exceptionalities (3) - Provides the special education major with an introduction to technology as it is being applied to meet the needs of individuals with disabilities and special education teachers. Computers, as well as other technological devices, are studied in relation to use as prosthetics, instructional tools, administrative tools and environmental interfaces.

70.206 Introduction to Early Intervention (3) - An overview of the field of early intervention (EI), including historical perspectives, philosophies of EI, influences of disabilities on the development of young children, early intervention models and intervention strategies.

70.240 Foundations of Special Education (3) - An introduction to the history, causes and characteristics of mental

retardation, physical disabilities and learning disabilities. A presentation of diagnostic materials and techniques as well as various approaches, programs and services will be given.

- 70.250 Behavior Disorders (3) - Provides techniques and strategies that may be used to support the behavior of students with disabilities. Covers psychological disorders, research related to aggressive and withdrawn behavior and techniques and materials used in social curriculum. Examines group and individual problems at all school levels .
- 70.340 Educating Individuals with Moderate/Severe Disabilities (3) - The course presents an orientation to the nature and needs of educating individuals with moderate and severe disabilities. Theory and techniques for individual assessment, curriculum development and instructional strategies are provided. Content will focus on the dynamics of including students into the home, school and community. The course will provide students with an opportunity to apply knowledge through a field-based experience.
- 70.353 Assessment and Planning (3) - Provides information and experience with formal and informal assessment devices and procedures, their usages and appropriateness. Covers gathering information about the learner prior to instruction concerning appropriate instructional tasks, sensory channels, interest areas and social skills. Covers ways of developing informal assessments, gathering observational information, storing information and planning for instruction.
- 70.357 Vocational Programming (3) - Develop a philosophy of vocational education for individuals with disabilities, acquire knowledge of programs and strategies to develop students' prevocational and vocational skills, learn information about and gain experience with curriculum materials and assessment procedures and develop strategies in transition planning.
- 70.375 Individual Project (3) - Project planned according to interests and needs of the individual student, in any of the following suggested areas: library research, curriculum study or internship in special aspects of educational programs.
- 70.401 Student Teaching With Exceptional Individuals (12) - Provides opportunities for each student to test and experiment with educational theory. The student teaching program requires one full semester to complete. Two assignments of eight to nine weeks are required. These assignments include two different exceptionalities, if possible, and two different chronological age groups. Placements may be in full-time, part-time or inclusionary settings. Students are responsible to perform in the following areas: diagnosing, planning, teaching, evaluating pupils' progress and clerical tasks. The student will systematically assume the role of the cooperating teacher. Prerequisite: Concurrent with 70.461.
- 70.407 Family-Centered and Inclusive Practices in Early Intervention (3) - Provides students with information, strategies and practical application of best practices in early intervention, specifically with regard to family-centered practices, communication and collaboration, observation and assessment, inclusion and adaptations. Prerequisite: 70.206.
- 70.408 Experiences in Early Intervention (1-6) - Provides students with the opportunity to apply theory, best practices and knowledge in early intervention environments with identified families and children, ages birth-6, with disabilities. Prerequisites: 70.206, 70.407.
- 70.433 Language Arts for Students with Special Needs (3) - Provides preservice teachers with a comprehensive overview of skills, assessment and strategies for teaching listening, speaking, reading and written expression. Students will prepare a portfolio of resources and best practices for teaching language arts to students with special needs.
- 70.450 Elementary Methods for Individuals with Mild Disabilities (3) - Provides a summary of the learning characteristics and instructional needs of students with mild disabilities. Learning theory, effective teaching strategies, classroom management and interaction with parents, paraprofessionals and professionals will be discussed.
- 70.451 Secondary Methods for Individuals with Mild Disabilities (3) - Familiarizes students with a variety of instructional techniques used to enhance the learning process of individuals with disabilities at the secondary level. Covers information pertaining to current issues in secondary special education and their impact on service delivery.
- 70.461 Problems in Special Education (3) - Presents instruction in the development of effective teaching individuals with exceptionalities. Focuses on problems in the education of this population. Discusses its relationship to teaching as each problem is defined. Helps the future teacher meet practical problems in guiding the individual with exceptionalities in learning experiences at school. Prerequisite: Concurrent with 70.401.
- 70.496/70.497/70.498 Special Workshop I, II, III (1-6) - Temporary special workshop seminars designed to focus on contemporary trends and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media technology-related techniques are utilized. Workshops usually are funded projects.
- 70.501 Administration and Supervision in Special Education (3) - This course presents an examination of the functions and responsibilities of the Administrator of Special Education. This includes functions in the areas of leadership, guidance, control, direction and management of special education programs and services within educational organizations. Understanding administrative theory and its application to current issues within the domain of special education will provide a framework for this course. School law, teacher recruitment, professional development, organization and integration of special education and ancillary services, evaluation of instruction, public relations and special education finance will be addressed.
- 70.502 Principles of Special Education Law (3) - Will pro-

vide an overview of the legal foundation of special education programs and services within the context of general school law. The practical application of federal and state mandates for educating student with disabilities, as well as relevant case law, will be highlighted. The provision of current core knowledge relating to special education legal requirements and strategies for organizational compliance will be addressed.

**70.503 Curricular Design and Instruction for Inclusive Education (3)** - This course presents an overview of program and curricular design with an emphasis on standards-based models used in providing access to the general education for all students. Within the context of this course, a unified system of education will be examined from a structural perspective an inclusive education practices will be analyzed based on effective school models, collaborative processes and strategies for making students with disabilities within the general education classroom. Differentiated instruction will be explored including developing learning profiles, understanding content, process and product differentiation, and using strategies for differentiating instruction.

**70.506 Introduction to Early Intervention (3)** - Presents an overview of the field of early intervention, including historical perspectives, philosophies of early intervention, influences of disabilities on the development of young children and early intervention models.

**70.507 Family-Centered and Inclusive Practices in Early Intervention (3)** - Provides students with information, strategies and practical application of best practices in early intervention, specifically with regard to family-centered practices, communication and collaboration, observation and assessment, inclusion and adaptations. Prerequisite: 70.506.

**70.508 Experiences in Early Intervention (1-6)** - Provides students with the opportunity to apply theory, best practices and knowledge in early intervention environments with identified families and children, ages birth-6, with disabilities. Prerequisites: 70.506, 70.507.

**70.516 Psychology of Exceptional Individuals (3)** - Symptomatology, personality formation and developmental and therapeutic consideration for the individual with exceptionalities.

**70.522 Assessment and Remediation of Mathematics for Special Needs Students (3)** - Provides an overview of the concepts of hierarchy of skills, computation, and application of addition, subtraction, multiplication, division, fractions, decimals, time, and measurement. Students will administer and interpret achievement, diagnostic and curriculum-based mathematics assessment. Emphasis on development of remedial math programs, adaptations of math curriculum for special needs students and design of a functional mathematics curriculum for students with moderate disabilities. Students evaluate, design, and implement a math program for elementary, middle school and/or secondary students based upon Pennsylvania academic standards for mathematics. Math education software, manipulatives, games, and materials will be evaluated and utilized.

**70.540 Educating Individuals with Moderate/Severe Disabilities (3)** - Presents an orientation to the nature and challenge of educating individuals with moderate/severe disabilities. Theory and techniques for individual assessment, curriculum development and instructional strategies are provided. Content focuses on the dynamics of integrating students into home, school and community environments. Provides students with an opportunity to apply knowledge through a field-based experience.

**70.526 Transition Services for Individuals with Special Needs (3)** - Presents an overview of methodology and service structures that facilitate the successful transition from school to adult living for individuals with special needs. Examination of the key aspects of transition will be highlighted.

**70.533 Language Arts for Students with Special Needs (3)** - Provides preservice teachers with a comprehensive overview of skills, assessment, and strategies for teaching listening, speaking, reading, and written expression. A holistic philosophy for teaching language arts will be stressed. Students will prepare a portfolio of resources and "best practices" for teaching language arts to students with special needs.

**70.544 Diagnostic and Remedial Techniques (3)** - Diagnostic and remedial techniques and instruments used with children in special education programs. Critical evaluation of applicability of each to the child in relation to causes and conditions of exceptionality. Development of skills in interpreting and writing case histories and reports, in selection and application of remedial techniques and evaluation of progress.

**70.547 Technology and Exceptional Individuals (3)** - Provides an introduction to technology as it is being applied to meet the needs of individuals with exceptionalities. Both simple and high technology solutions are explored as they relate to meeting the needs of individuals with mental, physical, sensory and communication disabilities. Topics include instructional tools and adaptations, environmental interfaces, prosthetics, as well as data and productivity tools.

**70.550 Elementary Methods for Individuals with Mild Disabilities (3)** - Provides students with an understanding of learning theory, classroom and behavior management and effective teaching strategies in a variety of curricular areas. Students will also discuss current issues dealing with the education of elementary students with mild disabilities. Strategies for interaction with parents and professionals will be covered.

**70.551 Secondary Methods for Individuals with Mild Disabilities (3)** - Familiarizes students with a variety of instructional techniques used to enhance the learning process of individuals with disabilities at the secondary level. Information pertaining to current issues in secondary special education and their impact on service delivery will also be discussed.

**70.552 Special Project (3)** - Designed to further a student's own interest and competency in an area of special education for the individual with exceptionalities. Library research or individual project involving service to the

individual with exceptionalities may be agreed upon and conducted under supervision of a faculty member.

- 70.559 Seminar in Special Education (3) - Facilitates an in-depth study of the research pertaining to the fields of mental retardation and learning disabilities, including the study of psychosocial retardation and brain injury. Includes detailed study of behavioral and cognitive development of individuals with mental retardation and learning disabilities.
- 70.565 Reading and Interpreting Research in Special Education (3) - Aids the student in reading, understanding, and evaluating the results of statistical and behavioral research carried out by others. Covers a working knowledge of basic statistical terms, an introduction to the type of research questions that can be answered by various statistical procedures, a knowledge of the basic steps of hypothesis testing, analysis and comparison of excellent and poor research designs, and the development of an ability to detect misuse of statistics.
- 70.570 Foundations of Behavior Disorders (3) - Covers characteristics of children with behavior disorders, approaches to remediation, general principles of classroom management, simulated problem solving, ideal academic models for children with behavior disorders, research findings, and sources of information.
- 70.572 Seminar on Behavior Disorders (3) - Seminar group composed of those who wish to read and discuss current material related to the area of behavior disorders. Group reads new research and discusses implications for applications, as well as future directions, moral issues, and more advanced systems of management and instruction.
- 70.575 Seminar in Current Issues in Special Education (3) - Will provide students with a forum to review and analyze current trends and issues in special education. The content of the course will change as current trends and issues emerge.
- 70.591 Practicum in Special Education (3) - Graduate experience for students in a setting with individuals with exceptionalities. Student spends a minimum of eight hours per week in practicum and meets regularly in a seminar fashion with the university instructor.
- 70.595 Internship (3-6) - Internship in special education. Supervision to take place in schools or educational situations under supervision of the local supervisor and graduate faculty.
- 70.596, 597, 598 Special Workshop I (1-6) - Temporary special workshop seminars designed to focus on contemporary trends, topics, and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media, and related techniques. Usually workshops are funded projects.

## SPA (72) Audiology and Speech Pathology

Administered by Department of Audiology and Speech Pa-

thology

- 72.200 Introduction to Audiology (3) - Introduces the causes, evaluation techniques and rehabilitative procedures for various types of hearing problems; related auditory, speech, psychological and educational factors; the roles of parent, educator and specialist in the rehabilitation program. Presents hearing conservation procedures used in schools and industry.
- 72.220 Phonetics (3) - Studies of the physiological, acoustical, perceptual and descriptive aspects of speech and sound production. Primary emphasis on description, classification and transcription of speech sounds. Provides a base of knowledge for diagnosis and treatment of phonetic and phonological disorders of communication.
- 72.240 Normal Language Acquisition (3) - Focuses on current information and theory regarding normal language acquisition. Prerequisite: 20.112
- 72.300 Auditory Training and Speech Reading (3) - Presents current teaching methods for educating children and adults with moderate and severe hearing losses. Prerequisite: 72.200.
- 72.310 Speech Science (3) - Speech science is the study of the physiology of speech production, the acoustical characteristics of speech and the processes by which listeners perceive speech. Prerequisites: 72.220, 50.366.
- 72.320 Assessment and Remediation of Language Disorders (3) - Prepares students for the clinical application of language analysis procedures drawn from linguistics, psycholinguistics and sociolinguistics and to apply knowledge from these areas to the management of language disorders. Studies various intervention models. Prerequisites: 72.152, 72.220, 72.240.
- 72.330 Assessment and Remediation of Speech Disorders (3) - Considers the major theoretical approaches to assessment and treatment of speech disorders. Students engage in clinical observation, examination of standardized tests and procedures used in the differential diagnosis of disorders in the areas of articulation, phonology, fluency and voice. Provides training in the administration of therapy programs. Prerequisites: 72.152, 72.220, 20.112.
- 72.340 Applied Behavioral Analysis for Speech and Language (3) - Applies the psychology of learning to communicative behavior and clinical problems. Presents current educational and therapeutic trends and practices.
- 72.350 Diagnosis and Evaluation in Speech-Language Pathology (3) - Provides a foundation for diagnosis and evaluation of speech and language disorders. Focuses on the psychometric issues of tests and interpretation of test scores. Critical evaluation of tests, particularly with diverse populations, will be addressed. Students will acquire skills in test administration, scoring and interpretation, clinical report writing and conferencing skills.
- 72.410 Applied Speech Science (3) - Applied speech science is the study of acoustic phonetics, speech physiology and the processes by which listeners perceive speech. In particular, this course will emphasize the application of

this knowledge to the clinical evaluation of both normal and disordered speech via the use of various types of speech analysis instrumentation. Prerequisites: 54.106, 72.220, 50.366.

- 72.430 Fundamentals of Audiology (3) - Presents a synopsis of primary concepts in diagnostic and rehabilitative audiology. Relates the possible implications of audiological topics to speech pathology, education of the hearing impaired, reading, nursing and special education.
- 72.450 Clinical Observation (3) - Students develop the skills of a trained observer and participate in observations of the practice of audiology and speech-language pathology. Observations are conducted on and off campus.
- 72.460 Psycholinguistics (3) - Presents the study of language as a psychological phenomenon. Areas of study include language acquisition, meaning, biology of language, sociolinguistics, nonverbal communication, animal communication and application of psycholinguistics to communication disorders. Prerequisites: 72.152, 72.240, 20.112.
- 72.468 Speech Habilitation in the Schools (3) - Examines the profession of speech/language pathology in a school setting as it interfaces with the other school-related disciplines. Emphasizes facilitation of communication among the disciplines.
- 72.480 Internship in Speech-Language Pathology (3-6) - Students gain practical experience by working in clinical or school settings as observers and aides to CCC-certified speech-language pathologists who are engaged in assessment and/or remediation of communication disorders. Students select sites with the collaboration of the course instructor and contract to complete a variety of learning activities while at site.
- 72.482 Undergraduate Audiology Internship (3-6) - Students gain practical experience in audiology by observing and helping certified audiologists engaged in providing clinical services. Students select sites with the collaboration of the course instructor and contract to complete a variety of learning activities at the site.
- 72.492 72.592 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are included.
- 72.493, 72.593 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are included.
- 72.494, 72.594 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and

technologies and related techniques and methodologies are included.

- 72.500 Measurement of Hearing Loss (3) - Studies anatomy and physiology of the hearing mechanisms. Covers etiology of hearing losses, interpretation of audiometric evaluations, and available rehabilitative procedures. Lab experience in the administration of clinical audiometric evaluation is provided. Prerequisite: 72.200, 72.300.
- 72.502 Physiological Methods in Audiology: Brainstem Evoked Response Audiometry and Electronystagmography (3) - Study of the electrophysiologic techniques used to assess cochlear and retrocochlear function. Review of theories and clinical applications of vestibular tests, auditory brainstem evoked responses, and electrocochleography.
- 72.504 Hearing Aids and Auditory Training (3) - Theoretical and clinical analyses of literature in relation to educational and other rehabilitative measures available to individuals with serious organic and nonorganic hearing problems. Study, interpretation, and evaluation of modern instruments and tests included.
- 72.506 Externship: Clinical Practicum in Audiology I (6) - Hearing losses and deafness affecting the personal and socio-economic adjustment of individuals evaluated and treated through supervised study and experience. Externships may be arranged in approved private and public institutions.
- 72.508 Externship: Clinical Practicum in Audiology II (6) - See course description for 72.506
- 72.510 Research in Audiology (3) - Application of clinical and non-clinical research literature to the solution of diagnostic and treatment problems encountered in the general practice of audiology.
- 72.512 Seminar in Audiology: Special Problems (3) - Analysis, interpretation, and study of selected problems in audiology and related disciplines that may include education, psychology, otology, rehabilitation, and other fields.
- 72.514 Seminar in Audiology: Industrial and Public Health Audiology (3) - Problems and programs of hearing conservation in public institutions and industries examined with special emphasis on legislation and medico-legal questions. Examines role and function of the public health and industrial audiologist.
- 72.516 Seminar in Audiology: Auditory Problems in Children (3) - Congenital and acquired hearing impairment in children examined with special emphasis on problems of differential diagnosis. Educational and social implication of hearing impairment in children discussed in conjunction with appropriate habilitative procedures.
- 72.518 Seminar in Audiology: Theoretical and Clinical Masking (3) - Neurophysiological and acoustic basis of problems of masking in auditory measurement explored and training offered in clinical masking procedures.
- 72.520 Educational Audiology (3) - Deals with the diagnostic and rehabilitative aspects of audiology in the educational setting. Examines the effects of hearing loss on

speech and language development, the use of amplification in the schools, and educational audiology alternatives and models.

72.522 Aural Rehabilitation: Theory and Practice (3) - Habilitation/rehabilitation of the hearing impaired including auditory training, speech reading, hearing aids, assistive listening devices, communication strategies, and counseling. Emphasis on the sensory capabilities (auditory, visual, tactile, and auditory-visual training) - of the hearing impaired with practicum lab.

72.524, 72.525, 72.526, 72.527, 72.528 Clinical Methods and Practicum in Audiology (3) - Emphasizes the Speech, Hearing, and Language Clinic as an integral part of the teaching-training program of the Department of Communication Disorders. The clinic provides outpatient diagnostic and therapeutic services for persons of all ages with speech, hearing, and language problems, including students, other members of the university community, and residents of the Bloomsburg area; serves as an extension of the classroom where students can apply and study evaluation procedures, therapeutic methods, techniques and materials, and the classification and etiology of speech and hearing disorders; gives students an opportunity to relate text and lecture information to actual clinical cases under the close supervision of certified staff. Students gain experience in all aspects of remediation - diagnosis, therapy, counseling, and report writing - with a wide variety of clients.

72.530 Fundamentals of Audiology (3) - Designed for graduate students who are not audiology majors such as, but not limited to, students in speech pathology, education of the hearing impaired, reading, nursing, or special education. Presents a synopsis of the primary concepts in diagnostic and rehabilitative audiology. Attempts to relate the possible implications of the audiological topics to each of the fields of study listed above.

72.532 Instrumentation and Electronics: Clinical and Hearing Science (3) - Emphasis on solving practical equipment problems and understanding the operation of equipment used in clinical practice and hearing services.

72.534 Central Auditory Processing Disorders (3) - Describes the various aspects of central auditory processing disorders. Students learn about the underlying processes of auditory processing in the central nervous system, including a review of several evaluation and remediation approaches used in the management of clients with central auditory disorders.

72.535 Clinical Physiological Methods in Audiology: ABR, EcochG (3) - Study of the electrophysiology techniques used to assess and diagnose cochleare and retrocochlear pathology and brainstem, spinal and nerve integrity. Review of theories and clinical applications of auditory brainstem-evoked potentials, electrocochleography, SSEP and VEP.

72.550 Adult Aphasia (3) - Studies language disorders in brain-injured adults. Areas of concentration include history of aphasia, neurological basis for aphasia, symptomatology of aphasia, associated problems, intelligence

and aphasia, evaluation of language and non-language functions, and current rehabilitative procedures.

72.552 Preschool Language (3) - Reviews normal language acquisition with primary emphasis on the application of developmental information to the diagnosis and habilitation of language disorders in children.

72.554 Stuttering (3) - Studies the development, diagnosis, and treatment of stuttering disorders with equal emphasis on academic understanding and clinical management.

72.556 Phonology (3) - Examines language-based disorders of articulation. Emphasis on identification, description, and remediation of phonological disorders. Generative and natural phonological processes are discussed.

72.558 Clinic I (3) - Prepares speech pathology graduate students for serving individuals with communication disorders in all aspects of clinical management in the Bloomsburg University speech, Hearing and Language Clinic. Allows students to develop necessary competencies in preparation for culminating experience (externship prior to graduation) in the professional community. Students earn a minimum of 150 hours of direct contact time with children and adults having various communication disorders over the three consecutive semesters.

72.560 Voice Disorders (3) - Studies diagnosis and clinical management of functional and organic voice disorders.

72.562 Language Disorders of School Aged Children (3) - Explores disorders of later language acquisition and the interaction of language disorders with academic achievement, especially in the acquisition of literacy skills. Diagnostic assessments and treatment approaches are developed.

72.565 Disorders of Speech in Children and Adults (3) - Considers the neuromuscular and structural disorders that may affect the speech process as an aerodynamic mechanism. Special emphasis on the adult, cerebral palsy, cleft palate and dysarthrias.

72.566 Clinic II (3) - See course description for 72.558.

72.568 Speech Habilitation in the Schools (3) - Examines the profession of speech and language pathology in a school setting as it interacts with the other school-related disciplines. Emphasis is placed on facilitating of communication among the disciplines.

72.570 Adult II - Secondary Language Disorders (3) - Study of secondary disorders of language in adults. Special emphasis on disorders of right hemisphere damage, dementia, and schizophrenia.

72.572 Augmentative Communication (3) - Explores the field of augmentative communication and non-speaking persons. Topics include candidacy issues, assessment, vocabulary configuration, symbol selection, and communication interaction training for language board and electronic device users. Examines current research practices and studies in communication interaction patterns of non-speaking individuals.

72.574 Clinical Instrumentation in Speech Pathology (1) - Provides the student with background information and experience with advanced clinical instrumentation used in the assessment and treatment of patients with speech, voice and swallowing disorders. In addition, clinical experiences applying clinical instrumentation discussed in the lectures will also be implemented as possible.

72.576 Clinic III (3) - See course description for 72.558.

72.580 Communication Disorders of the Traumatically Head Injured (3) - Studies the nature of traumatic head injuries, emphasizing assessment and treatment of resultant cognitive communication disorders.

72.582 Research in Speech and Language Pathology (3) - Application of clinical and non-clinical research literature to the solution of treatment problems encountered in speech and language pathology.

72.584 Field Experiences I (3) - Considers special clinical problems of clients through advanced study and experience. Externships in approved institutions or schools. Problem areas and student practicum must be approved by a graduate adviser.

72.586 Field Experiences II (3) - See course description for 72.584.

72.590 Independent Study and Research (3) - Permits students to work under close faculty guidance on library study of specified areas or on individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

72.591 Independent Study and Research (3) - See course description for 72.590.

72.592 Workshop in Audiology and/or Speech Pathology (3) - Temporary workshops/seminars designed to focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are concepts that might be incorporated into one of the workshops/seminars.

72.593 Workshop in Audiology and/or Speech Pathology (3) - See course description for 72.592.

72.594 Workshop in Audiology and/or Speech Pathology (3) - See course description for 72.592

## HRL (74) Studies in Hearing Loss

Administered by Department of Exceptionality Programs

74.201 History, Education and Guidance of the Deaf/Hard of Hearing (3) - Explores hearing loss with emphasis on the history of educational procedures and guidance in communicative, psychological and vocational habilitation.

74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing (3) - Introduces the design of instructional procedures and methods of implementing cur-

ricula for education of the deaf/hard of hearing. Discusses and demonstrates traditional and innovative approaches to teaching.

74.380 Phonetics (3) - Studies of the physiological, acoustical, perceptual and descriptive aspects of speech and sound production. Primary emphasis on the description, classification and transcription of speech sounds. Provides a base of knowledge for the diagnosis and treatment of phonemic and phonological disorders of communication. Prerequisites: 74.153, 74.201, 72.200, junior or senior standing.

74.390 Directed Project in Communication Disorders (3) - Gives students the opportunity to carry out special residence or field projects in professional service programs under the direction of the faculty or designated practitioners. A detailed project plan must be submitted for faculty approval prior to registration.

74.400 Communication Disorders Workshop (3) - Specialized study of communicatively handicapped persons, new technology in the field of communication disorders.

74.462 Problems in Education of the Deaf/Hard of Hearing (3) - Addresses the educational problem of hearing loss and the function of teachers in public and private educational settings.

74.469 Experience in Education of the Deaf/Hard of Hearing (1-3) - Provides experience working under supervision with deaf and hard of hearing children in a demonstration classroom or field facility. Prerequisite: Consent of the instructor.

74.480 Independent Study and Research (1-3) - Permits students to work under faculty guidance when particular needs cannot be met by regularly scheduled courses. Learning experiences may include library research or creative academic projects. Nature and scope of the project determine semester hours awarded.

74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families (3) - Designed to help students identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.

74.560 Practicum with the Deaf/Hard of Hearing (3) - Provides an opportunity to work with deaf/hard of hearing children and/or adults. Emphasis on speech and language remediation of deaf/hard of hearing individuals. Prerequisites: 74.564, 74.566, and 74.567 (concurrently)

74.564 Speech for the Deaf/Hard of Hearing (3) - Study of the principles and techniques used in development and formation of English speech sounds by the synthetic and analytic methods with special consideration given to production, classification, and transmission of speech sounds. Supervised demonstrations and practice are an integral part of the course.

74.565 Problems and Trends in Education of the Deaf/Hard

of Hearing (3) - Focuses on current practices and trends in education and welfare of deaf/hard of hearing individuals. Concerned with psychology, social adjustment, educational achievement, political and social viewpoints, learning problems, and vocational competence of the deaf/hard of hearing. New techniques and methodologies.

- 74.566 Language for the Deaf/Hard of Hearing I (3) - Study of the principles and techniques used in the development and correction of language for deaf/hard of hearing individuals. Student is familiarized with leading systems of natural language development designed for the deaf/hard of hearing. The step-by-step development of at least one language system is required for each student. Supervised demonstrations are an integral part of the course.
- 74.567 Language for the Deaf/Hard of Hearing II (3) - Study of structured approaches to teaching spoken and written language, of language assessment devices and appropriate lesson planning. Supervised demonstrations and presentations are an integral part of this course.
- 74.568 Advanced American Sign Language (3) - Study of the expressive and receptive components of American Sign Language with an emphasis on communicating with the deaf.
- 74.569 Curricular Subjects for the Deaf/Hard of Hearing (3) - Examines practices, content, and methods of teaching school subjects to the deaf/hard of hearing with emphasis on content and methods rather than theory.
- 74.570 Student Teaching with the Deaf/Hard of Hearing (6) - Evaluates hearing losses affecting the communicational, educational, and vocational adjustment of individuals through supervised observation, classroom practice, and practicum experience. Students are assigned to approved private and public programs for the deaf/hard of hearing and work with selected professionals in education of the deaf/hard of hearing, following the same schedules and responsibilities similar as professionals. Arrangements relating to student interest must be approved by program adviser. Permission of curriculum coordinator required.
- 74.575 Counseling Needs of Communicatively Disordered Individuals and Their Families (3) - Designed to help students identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.
- 74.580 Independent Study and Research (3) - Permits students to work under close faculty guidance on library study of specified areas or individual research projects when particular needs cannot be met by registration in regularly scheduled courses.
- 74.58I Independent Study and Research (3) - See course description for 74.580.
- 74.584 Research in Education of the Deaf/Hard of Hearing (3)

74.599 Master's Thesis (3 - 6)

## ITR (75) Interpreter Training

Administered by Exceptionality Programs

- 75.153 Introduction to Sign Language (3) - A study of sign language vocabulary and fingerspelling techniques used in communication with members of the deaf community. Emphasizes developing expressive and receptive skills.
- 75.155 American Sign Language I (3) - A study of American Sign Language (ASL) including the history of ASL and its recognition as a language. Focuses on development of expressive and receptive conversational ASL skills. Prerequisite: 74.153 or equivalent skills; instructor permission required.
- 75.226 American Sign Language II (3) - A continuation of ASL I with emphasis placed on more complex grammatical structures and conversational fluency. Prerequisite: 75.154.
- 75.254 The Deaf Culture (3) - Involves study and analysis of the deaf community. Emphasis on research and discussion of social, psychological and personal aspects of the members of the deaf community.
- 75.257 American Sign Language III (3) - Continuation of ASL II. Major focus on the study of ASL sign principles and linguistic structure of the language to continue building expressive and receptive ASL skills. Prerequisite: 75.155.
- 75.327 American Sign Language IV (3) - A continuation of ASL II. Focuses on more advanced linguistic aspects of ASL and a synthesis of all concepts previously learned. Prerequisite: 75.255.75.260 Interpreting in the Educational Setting (3) - Study of interpreting within a variety of educational settings including postsecondary, secondary and elementary areas. Topical areas include: recent legislation on the status of interpreters, characteristics of various meetings and visually coded English Sign Systems.
- 75.301 Introduction to Interpreting for the Deaf (3) - Focuses on topics such as the Registry of Interpreters for the Deaf, various kinds of certification, establishing the interpreting situation and the mental processes involved in interpreting and transliteration. Emphasis on ethical behavior. Prerequisite: to be taken concurrently with 75.256.
- 75.302 Interpreting English to American Sign Language (3) - Focuses on building expressive interpreting skills. Experience gained through laboratory work and classroom discussions when interpreting situations for observation and practice are presented. Emphasizes professionalism, principles and ethics. Prerequisite: 75.301 or permission of the instructor.
- 75.303 Transliterating English to Sign Language (3) - Focuses on building transliteration skills. Experience gained through laboratory work and classroom discussions when transliteration situations for observation and practice are presented. Emphasizes professionalism,

principles and ethics. Prerequisite: 75.301 or permission of the instructor.

75.304 Oral Interpreting/Transliterating (3) - Identifies information and techniques and the utilization of skills required for effective oral interpreting and transliterating. Includes use of personal characteristics to facilitate speech reading and the identification of the needs of the hearing impaired individual during interpretation. Prerequisites: 75.153 and 75.301.

75.401 Sign to Voice Interpreting (3) - Emphasis on classroom discussion and laboratory work developing skills of comprehending the signed message, forming syntactically and contextually correct English interpretations and the proper use of the voice. Prerequisite: 75.301 or permission of the instructor.

75.415 Practicum in Interpreting (3) - Involves the placement of the student in interpreting situations on and off campus to gain "on-the-job" experience. Requires a minimum of 120 interpreting hours.

## PRS (79) Professional Studies

Administered by the Departments of Early Childhood and Elementary Education, Educational Studies and Secondary Education and Exceptionality Programs

79.301 Teaching, Learning and Assessment (3) - A study of how teaching, learning and assessment are used collectively in early childhood and elementary classroom settings. The emphasis is on how teaching, learning and assessment are impacted by the Pennsylvania Content Standards and effectively used by the teaching professional. Field opportunities are available in this course.

79.312 Internship in Education (1-15) - A work study program in an education-related setting applicable to fulfilling free electives in teacher education degree programs.

79.320 Field-Based Inclusion Practicum (6) - Provides application of theories in learning, assessment, classroom management and teaching strategies to inclusive school settings. Topics include building home/school partnerships, environmental/curricular adaptations, instructional support teams, collaboration, cooperative learning, mastery learning, classroom management, whole language, curriculum-based assessments, peer coaching. Prerequisite: junior or senior status.

79.591 Research in Education (3) - Studies methods and techniques used in educational research; development and interpretation of statistical data and application to professional problems.

79.593 Studies in Human Diversity (3) - Designed for teachers seeking an advanced degree in education. Broadly based and field-based oriented. Provides additional opportunities to integrate new learning and classroom experiences in these areas: human development, language and culture, learning modes and styles, multicultural and exceptional studies, and an understanding of the social and cultural milieu.

79.599 Thesis (6) - Student demonstrates ability to employ

accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to the curriculum that the student is pursuing.

## HLT (80) Health Sciences

80.400 Health Sciences Internship (3-6) - Provides the opportunity to apply acquired knowledge in an on-site practicum experience under the supervision of an appropriately credentialed preceptor. Open to students in the health sciences. Prerequisite: senior standing.

80.500 Health Sciences Internship (3-6) - Provides students in the multidisciplinary health sciences an opportunity to apply acquired knowledge in an on-site practicum experience under the supervision of an appropriately credentialed preceptor.

## NUR (82) Nursing

Administered by Department of Nursing

Courses within the nursing curriculum are restricted to students in the B.S.N. program except for 82.217 Alcohol: Use and Abuse and 82.100 Personal Health: A Multidimensional Perspective which are values or free electives open to all students.

82.100 Personal Health: A Multidimensional Perspective (3) - This course will provide the student with information and tools to improve their personal health through accountability for health habits and decision making. Three major themes will evolve: 1) the relevance of personal health decisions to Health People 2010 objectives; 2) current health issues within contemporary society; and 3) emphasis on holistic health – psychological, physical, social, environmental and spiritual – within a legal, ethical, political and cultural context.

82.200 Psychomotor Skills for Sophomores (1) - Students demonstrate psychomotor skills under simulated conditions. Skills reflect concepts appropriate to the sophomore level clinical experiences taught in 82.213. Concurrent with 82.213.

82.204 Critical Evaluation of Research in Nursing (1) - Introduces research methods and techniques. Focuses on the student as a consumer of research with emphasis critiquing research studies for application and the ethics of research with human subjects. For Non-Matriculating RNs.

82.205 Research Application in Nursing (1) - Focuses on the contribution of research to the discipline and the consumer's role in applying research findings. Emphasizes identifying researchable problems and improving practice through application of research findings. Prerequisites: 82.204, Statistics course. For non-Matriculating RNs.

82.206 Proposal Writing in Nursing (1) - Focuses on the research process in identifying a researchable problem and formulating a beginning level research prospectus.

- Emphasizes conceptualization of a design to study a research problem. Prerequisite: 82.204, 82.205, Statistics course or consent of instructor. For Non-Matriculating RNs.
- 82.210 Professional Nursing - Introduces the student to the Bloomsburg University undergraduate nursing program and the concepts and processes of professional nursing. The mission, philosophy, and conceptual model of the curriculum are discussed. Major concepts of the program are integrated into all aspects of the course. Students develop the view of person as a holistic open-system who is growing and developing across the life span. Exploration of the person's environment is included as related to nursing practice. Nursing roles are examined. Laboratory activities furnish opportunities to develop skills in group dynamics, communication and teaching. Assessment skills are applied as the student demonstrates the teaching role with clients in the community. Prerequisites: 45.211 or 213 or 46.200, 48.101, 48.210, 50.173, 50.174, 52.101, 52.108.
- 82.211 Nutrition (3) - Introduces the principles of nutrition and ways in which these principles are applied to promote an optimal level of functioning for all individuals. Topics include nutritional requirements for maintaining health and development throughout the life span as well as factors affecting food choices of individuals and society. Prerequisites: 50.240; concurrent 82.213
- 82.212 Pharmacology (3) - Provides a foundation in pharmacology for pharmacologic content integration throughout the curriculum. Explores the legal, social, ethical, historical, and political dimensions of pharmacotherapeutics. Prerequisites: 45.211 or 45.213 or 46.200, 48.101, 48.210, 50.173, 50.174, 52.101, 52.108; concurrent 50.240, 82.210, 82.214
- 82.213 Foundations of Nursing Practice (5) - Focuses on the application of assessment skills to promote optimal levels of functioning of the adult and older adult. Students apply theory to the care of the individual client as they begin to assume the nursing roles of practitioner, teacher, leader/manager and consumer of research. Students expand their knowledge and application of major nursing concepts as they provide health care to clients in non life-threatening situations. Laboratory simulations and computer instruction enable the student to develop psychomotor skills basic to nursing practice. Instructional strategies include clinical experiences with clients in community, acute, and long term care settings. Prerequisites: 82.210, 82.212, 82.214, 50.240; concurrent 82.200, 82.211, 82.215
- 82.214 Health Assessment (3) - Introduces techniques and principles of health assessment for adult clients. Communication and interviewing skills are reinforced throughout the course. Health patterns of adults are assessed. Validation of health histories and practice of review of systems and basic assessment skills will occur in the simulated learning laboratory. Prerequisites: prior to or concurrent with 82.210 or 82.305 (RN's only).
- 82.215 Pathophysiology for Nursing Practice (3) - Assists the student to apply the physiological principles as a means of understanding pathological conditions. Pathophysiological disruptions to system functioning are presented. The impact of these disruptions on the individual is discussed. Students will develop an understanding of signs and symptoms associated with selected pathophysiological disruptions as a basis for determining nursing care needs. Prerequisites: Prior to or concurrent with 82.213 Foundations of Nursing Practice, 82.210 Professional Nursing and 50.240.
- 82.217 Alcohol: Use and Abuse (General Education) (3) - Elective: Provides a comprehensive overview of alcohol use and misuse in the American population. Because alcohol is a leading public health problem in the U.S. today, this course is intended for students of all disciplines. The nature of alcohol problems will be examined as well as socio-cultural attitudes toward drinking. Alcohol's effects on the body will be explored. The impact of alcoholism on adolescents, professional workers, women, the elderly, and the family will be discussed. Prevention, intervention, and referrals will be examined. An overview of treatment and rehabilitation will include spiritual, moral, and legal aspects. This is not a clinical course; it is a free elective and an approved general education values course. Prerequisites: None
- 82.300 Psychomotor Skills for Juniors (1) - Students demonstrate psychomotor skills under simulated conditions. Skills reflect concepts taught in 82.311 and 82.312. Concurrent with 83.311 or 83.312.
- 82.305 Role Development for the Nurse Generalist (RN's) (3) - This course is designed to advance the role development of the registered nurse into professional practice as espoused by baccalaureate education in nursing. In this course, students will be introduced to the mission, philosophy, objectives, and organizing framework of the Bloomsburg University Department of Nursing. Students will apply concepts, principles and a variety of theories derived from nursing and related disciplines in developing their professional roles as practitioner, teacher, leader/manager, and consumer of research. Insights derived from values clarification and self-awareness activities will be applied as students explore legal, ethical, political and technological issues in their work independently and/or in collaboration with others. Students will be expected to apply principles and strategies of effective communication and group process as they work independently and/or in collaboration with others. Students will also be expected to articulate their own philosophy of professional nursing practice and to explore, at a basic level, the relatedness of their philosophy to a model of nursing practice. Prerequisites: Current state licensure as a RN, 45.211 or 45.213 or 46.200, 48.101, 48.160 (or 53.141), 48.210, 50.173, 50.174, 50.240, 52.101, 52.108; and requirements under the articulation model.
- 82.306 Introduction to Nursing Research (3) - Introduces students to the concepts, skills and processes of research in nursing. The contributions of selected nursing theorists are explored as frameworks for nursing inquiry. Students evaluate research critically and examine its importance to the discipline of nursing. Prerequisite: 48.160 or 53.141; junior standing; 82.305 (if RN) or consent of instructor. (Spring semester only)

82.307 Geriatric Nursing (3) - Focuses on the physiological, psychological and social aspects of aging with emphasis on the assessment of problems and appropriate nursing intervention. Prerequisite: junior or senior standing or RN.

82.310 Family Nursing (2) - Focuses on the concept of family as a open system and use of the nursing process to assess and promote family health across its lifespan. Students analyze the structures and functions of the family in contemporary U.S. society as a basis for determining health care needs. The role of the environment and sociocultural factors are explored as they influence the family's various factions. The nurse's role in assisting the family assume responsibility for meeting the needs of its members is stressed. Prerequisites: 82.213 Foundations of Nursing Practice; concurrent 82.311 or 82.312. Fall Semester Junior Year only.

82.311 Adult Health Nursing I - Focuses on using assessment skills to diagnose, plan, deliver and evaluate care to adults and their families. Emphasis is placed on knowledge of health promotion in addition to the management of chronic illnesses. Students incorporate developmental theories in both health teaching and the provision of care. increasing independence occurs in the nursing roles of practitioner, teacher, and consumer of research as students provide care in acute care and restorative settings. Through collaboration with the health care team, students increase their awareness of the many roles of the professional nurse in today's complex health care setting. Prerequisites: 82.213

82.312 Maternal and Child Health Nursing - Focuses on family-centered nursing and the use of assessment findings to diagnose, plan, deliver, and evaluate quality care of women, neonates, children, and their families. Students, with guidance form faculty, integrate family and developmental theories into nursing practice with clients in a variety of settings. As providers of care, students serve as the patient advocate and educator as they focus on health promotion, risk reduction, and illness and disease management. Clinical sites support the students' increasing responsibility for collaboration with other members of the interdisciplinary team. Prerequisites: 82.213

82.313 Special Topics (1-6) - Presents a diversity of topics focusing on contemporary trends, issues and problems relevant to the principles and practice of professional nursing in the health care system.

82.405 Independent Study (1-6) - Requires investigation of an area of special interest and value to the student under the direction of a faculty member following a plan approved by the department chairperson. Course may be interdisciplinary. Prerequisite: junior or senior standing or consent by department.

82.410 Community Health Nursing (5) - Focuses on the use of demography, epidemiology, program planning and evaluation to assist communities with the promotion, restoration and maintenance of health. The impact of multiple systems on health and healthcare delivery is identified as students collaborate with clients, support systems, other providers, public health agencies and the

community as a whole. Role development is fostered through independent and interdependent activities with culturally diverse groups and organizations. Approved as a cultural diversity course. Prerequisites: 82.306, 82.311, 82.312, (82.305-RNs only)

82.411 Psychiatric/Mental Health Nursing (5) - Focuses on the application of diverse theories, psychobiological concepts and epidemiological principles to students' use of nursing process to promote, maintain and restore the health of a culturally diverse client population in a variety of mentNUR (82) Nursing

Administered by Department of Nursing

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- Students develop the view of person as a holistic open-system who is growing and developing across the life span. Exploration of the person's environment is included as related to nursing practice. Nursing roles are examined. Laboratory activities furnish opportunities to develop skills in group dynamics, communication and teaching. Assessment skills are applied as the student demonstrates the teaching role with clients in the community. Prerequisites: 45.211 or 213 or 46.200, 48.101, 48.210, 50.173, 50.174, 52.101, 52.108.
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- 82.410 Community Health Nursing (5) - Focuses on the use of demography, epidemiology, program planning and evaluation to assist communities with the promotion, restoration and maintenance of health. The impact of multiple systems on health and healthcare delivery is identified as students collaborate with clients, support systems, other providers, public health agencies and the community as a whole. Role development is fostered through independent and interdependent activities with culturally diverse groups and organizations. Approved as a cultural diversity course. Prerequisites: 82.306, 82.311, 82.312, (82.305-RNs only)
- 82.411 Psychiatric/Mental Health Nursing (5) - Focuses on the application of diverse theories, psychobiological concepts and epidemiological principles to students' use of nursing process to promote, maintain and restore

the health of a culturally diverse client population in a variety of mental health care settings. Students employ a "therapeutic use of self: and function in independent and interdependent roles as they collaborate with client, support systems and other providers to deliver holistic and humanistic care. Prerequisites: 82.306, 82.310, 82.311, 82.312. Concurrent with 82.410.

- 82.412 Adult Health Nursing II - Focuses on meeting the health care needs of acutely ill adults with complex needs. Students employ critical thinking skills in the planning and delivery of health care to acutely ill adults and their families. Students use assessment, technical skills, and information and health technologies in assisting these adults to attain an optimal level of functioning. They communicate and collaborate with clients and the interdisciplinary team to promote, maintain, and restore optimal health to a variety of clients. Learning experiences are provided in order for students to continue to develop proficiency as a practitioner, teacher, leader/manager and consumer of research. The course promotes integration of values into professional behaviors and accountability for personal and professional growth. Prerequisites: 82.306, 82.310, 82.311, 82.312. Concurrent with 82.414.
- 82.414 Nursing Management/Leadership (4) - Focuses on management principles, including leadership theories and concepts, decision-making processes, budgeting guidelines and case management concepts. Content on public policy and health care economics are integrated into concurrent clinical courses to enhance professional role development. Prerequisites: 82.305(RNs), 82.306, 82.310, 82.311, 82.312, senior nursing major status.
- 82.451, 82.551 Transcultural Health Issues (3) - This course is designed to provide students with a global perspective of transcultural health issues. Students will analyze the cultural, social, educational, economic, political, and environmental forces that contribute to health on an international level. Major cultural and ethnic determinants of health in developed in various countries in solving their health care problems will be addressed. Research on transcultural health organizations dealing with cultural and ethical and ethical issues in world health will be evaluated. Prerequisites: Junior/Senior Undergraduate nursing major status or Registered Nurse (RN).
- 82.460 Health Concerns in the Classroom (3) - Focuses on health problems of the school-age population and the educators role in the classroom management of these problems. Health mandates, acute and chronic health conditions of childhood and adolescence, and strategies for maintaining a healthy classroom environment are presented. The medically fragile child in the classroom is also discussed. Prerequisites: Senior standing; Juniors with permission of faculty member.
- 82.500 Applied Statistics for Health Professionals (3) - Applies principles and methods of statistical analysis of data in the health professions. The course emphasizes statistical concepts as a set of principles and a way of thinking for health professionals. Course is not required. Prerequisites: high school algebra, basic statistics course

or consent of the instructor. 82.501 Theoretical Bases for Role Development in Advanced Nursing Practice (3) - Examines theoretical formulations related to role development in advanced nursing practice. Students use concepts, principles and strategies inherent in a variety of theories (i.e., systems, change, professional socialization and role) to serve as a framework for the development and enrichment of their advanced practice roles. Theory building, the relationship of models to theories, and major conceptual and theoretical models in nursing practice are also introduced. Students analyze and apply tenets of selected conceptual model of nursing to their own philosophy of advanced nursing practice. Leadership principles are also incorporated as students identify an actual or potential issue or problem related to their advanced practice role and design a proposal for planned change.

82.502 Epidemiology: Concepts and Principles for Advanced Nursing Practice (3) - Focuses on conceptual orientation and knowledge of techniques from epidemiology as a basis for all aspects of population-based practice in advanced nursing. Epidemiological perspective presented as a framework for assessing the well-being of populations and designing, implementing, and evaluating strategic nursing and health care interventions. Students apply basic epidemiologic research designs in the investigation, analysis, and proposed solutions to observed patterns of health states in contemporary populations.

82.503 Bases for Research for Advanced Nursing Practice (3) - Builds on previous knowledge of research and statistics to enhance student application, use, and development of nursing research to improve the quality of health and health care delivery. Principles and strategies inherent in scientific inquiry, critical evaluation and the research process are applied. Focuses on identification of a researchable problem in clinical nursing practice, review and critique of relevant literature, selection of a conceptual or theoretical framework and identification of an appropriate research design and methodology to study the problem. Students plan, develop and present a research prospectus using appropriate scholarly format and style.

82.504 Pathophysiology for Advanced Nursing Practice (3) - Presents pathologic mechanisms of disease that serve as a major component in the foundation for clinical assessment and management of individuals, essential for advanced nursing practice. Primary focus is on applying pathophysiological mechanisms to explain illness phenomena and in assessing an individual's response to the pharmacologic management of illnesses. Major laboratory studies useful for verifying abnormalities are discussed. Builds on knowledge from undergraduate courses through pursuit of content in greater depth and synthesizing and applying research-based knowledge.

82.507 Pharmacology for Advanced Nursing Practice (3) - Applies principles of pharmacology to advanced nursing practice of adults. Emphasis is on physiological mechanisms of drug action and significant adverse reactions. Presents proper prescribing and monitoring procedures for various drug regimens used to treat common disease states. Discusses self-medication, multiple

drug interactions, legal, ethical and socio-cultural implications of drug therapy and patient teaching. Presents alternative "drug" therapies. Prerequisite: 82.504.

82.508 Adult Health Assessment and Promotion (6) - Focuses on developing the student's competence in performing health assessment of adults. Learning experiences are provided for synthesizing cognitive knowledge with psychomotor skills. Throughout the course, emphasis is placed on health assessment, communication, analysis of data, written and verbal presentation of data and issues related to health promotion and disease prevention in adults. Prerequisite or corequisite: 82.504.

82.509 Theory of School Health Nursing (3) - Provides an overview of coordinated school health programs and the role of the school nurse. The focus is on the implementation of a coordinated school health program based on local and state mandates and laws. Emphasis is placed on the relationship between a coordinated school health program and Healthy People objectives.

82.511 Community Health Nursing I (6) - Focuses on the role development of the clinical nurse specialist in community health nursing. Students apply advanced knowledge, skills and critical thinking in the competent use of the nursing process with populations and the community as a whole. Evaluation and refinement of a model for advanced practice provide a framework for the student's development of the multifaceted roles of practitioner, educator, researcher, consultant and leader/manager. Leadership principles and strategies are applied as students assess and analyze the health status and determinants of health of populations and the total community. Students collaborate and coordinate with other community health nurses, a variety of providers, and clients in a diversity of settings to plan and develop innovative programs designed to meet identified health needs of risk populations in the community. Weekly seminars assist and enable the students to participate in the analysis of current community health issues, develop research skills, and understand the development and operationalization of health policies within community health programs. Prerequisites: 82.501, 82.502, 83.503 and candidacy for MSN degree..

82.512 Adult Health and Illness Nursing I (6) - Focuses on the role development of the clinical nurse specialist in adult health and illness. Students apply advanced knowledge, skills and critical thinking in the competent use of nursing process, therapeutic interventions, and technology to administer nursing services to a specific adult population to facilitate optimal wellness and to impact on the delivery of adult health care. Evaluation and refinement of a model for advanced practice provide a framework for holistic care of adult clients and one's development of the multifaceted roles as practitioner, educator, consultant and leader/manager. Leadership principles and strategies are employed as students collaborate with adult clients, support systems and variety of providers in diverse settings to promote, restore and maintain adult health. Through social, ethical and political actions, client advocacy and change process are encouraged to affect the quality of adult health care. Weekly seminar affords student's participation in ana-

lyzing current adult health care problems, trends/issues and in evaluating and formulating strategies for health care reform. Research skills are enhanced through seminar presentations, clinical practicum and course assignments. Prerequisites: 82.501, 82.502, 83.503 and candidacy for MSN degree..

82.513 Management and Organizational Behavior in Nursing Administration (6) - Applies managerial theories and concepts to nursing administration. Focuses on the synthesis and utilization of managerial principles, organizational behavior, management information systems, operations management and financial accounting in nursing administration for the delivery of effective health care. Fall semester only. Prerequisites: 40.512, 91.504, 91.524, 93.501, 93.566, 82.501, 82.502, 83.503, 82.520. Two hours/week, practicum for 12 hours/week.

82.514 Independent Study (3) - Student works with a faculty preceptor in conducting an individualized study related to a particular area of clinical interest.

82.515 Diagnosis and Management of Health Problems in Adults I (6) - First of two clinical courses that focuses on diagnosis and management of health problems in adults. Emphasis on developing knowledge related to the most common problems for adults in ambulatory care, including but not limited to hypertension, cough, chest pain, dyspnea, edema and fatigue. Addresses issues related to the role of the nurse practitioner and provides opportunities to discuss these as the student begins the transition to this advanced practice role. Prerequisites: 82.502, 82.507, 82.508.

82.516 Diagnosis and Management of Health Problems in Adults II (6) - Second of a two-semester clinical sequence that focuses on the diagnosis and management of health problems in adults. Emphasis on developing knowledge related to the most common problems for adults in ambulatory care, including but not limited to sore throat, abdominal pain, headache and arthritis. Addresses issues related to the role of the nurse practitioner and provides opportunities to discuss these as the student continues transition to this advanced practice role. Prerequisite: 82.515.

82.517 Diagnosis and Management of Children and Pregnant Women (8) - Offered to students who have completed all courses for the Adult Nurse Practitioner Program and who desire preparation as a Family Nurse Practitioner. Completion of this clinical course will prepare the student to function as a Family Nurse Practitioner and to be eligible to take a family nurse practitioner national certification examination. Focuses on the diagnosis and management of the most common health problems of children and pregnant women with an emphasis on developmental stages and family social and cultural influences. The student will increase clinical reasoning skills to manage acute and chronic illnesses as well as to promote the health of children, pregnant women and families in primary care settings. In addition, the course will address issues related to the role of the Family Nurse Practitioner and provide opportunity to discuss this as the student continues the transition to this advanced practice role.

82.520 Community Assessment and Planning (3) - Provides students with knowledge and skills to perform a comprehensive community assessment and develop a program for an identified health need or problem. Students use concepts from nursing theory, epidemiology, cultural principles and research to identify a community need or problem, develop a proposed solution and plan of action. Preparation of a grant proposal will be a major focus of the plan of action. Class format is seminar and collaborative group work. Prerequisite: 82.502.

82.521 Nurse as Health Educator Within School System (3) - Focuses on the application of principles of health promotion and health education within the school system. Theoretical content builds on learning theories appropriate to the school age child and families. This course provides the information necessary for the school age child and families. This course provides the information necessary for the school nurse to assess the health education needs of school students, families and school personnel; to plan a specific health program; and, to identify mechanisms for implementation within a school system.

82.522 Family Health Nursing Theory (3) - Focuses on theoretical perspectives of the family as a basis for advanced practice nursing in the specialty area of Family Nurse Practitioner. Models and theories of family health and family nursing are analyzed, compared, and contrasted. Strategies for using these theoretical bases to form working partnerships with families across the life cycle to advance their capacities are explored in depth. Use of the clinical case study methodology demonstrates the levels and scope of information and interventions that can be derived from using the various models and instruments. The implications for family practice, education, family health policy, and research are examined.

82.531 Community Health Nursing II (6) - Builds upon Practicum I and concentrates on advanced professional nursing. There is an emphasis on the student's increasing independence and self-directed learning. Through the assimilation of additional theory, students continue to apply critical thinking, communication skills, therapeutic interventions and values as they implement and evaluate community health nursing programs and interventions for selected high-risk populations. They function independently and collaboratively with others who influence the health care environment to improve the health of the community. Students continue to engage in social, ethical and political actions which initiate and effect change at the community level. Interventions that assist in the development of public policy based on the assessed needs of populations are stressed. Weekly seminars continue to focus on the analysis of current community health issues, leadership in the development of health policy and research in the advanced practice in community health nursing. Prerequisite: 82.511.

82.532 Adult Health and Illness Nursing II (6) - Concentrates on advanced professional nursing practice as a clinical nurse specialist within a specialized area of adult health and illness through independent, self-directed learning. Through self-directed learning activities, the

student is facilitated to assimilate additional theory and research in advancing the student's knowledge, critical thinking, communication skills, therapeutic interventions/technology and values in advanced clinical nursing practice for adult clients. Students enhance their expertise in the multifaceted roles of the clinical nurse specialist in adult health and illness by assuming leadership/management positions in a health care setting and by functioning both independently and collaboratively with clients, support systems, other providers and community in improving the quality of adult health care. Social, ethical and political actions are employed in order to initiate and affect change regarding the development of health care policy and its effect on health care. Weekly student-conducted seminars focus on the analysis of current concepts, practices, trends, issues, health policies and research in their role enactment as clinical nurse specialists in the advanced practice of adult health and illness. Prerequisite: 82.512.

82.533 Management and Organizational Behavior in Health Care Delivery System (6) - Seminar format that explores model building and the future directions of organizational structures for advanced nursing practice. Organizational theory provides the framework for organizational characteristics and identifying the organizational strategies and structures with greatest potential for promoting effective performance and organizational growth. Focuses on organizational environments and planned change in the health care delivery system. Course may be taught in another country to provide international aspects. Prerequisite: Consent of the instructor.

82.534 Adult Nurse Practitioner Practicum and Seminar (6) - Culminating clinical course for the adult nurse practitioner program. Provides the student an opportunity to apply knowledge gained throughout the program while gaining entry-level competence in the clinical area of the student's choosing. Addresses clinical and professional role issues, including management of complex patients and assessment of organizations as practice settings, quality of care and risk management, and professional responsibilities of practice. Issues of professional responsibility include influence of and on health policy, continuing education, health education of the community and clinical research. Focuses on developing confidence and competence as an adult nurse practitioner. Prerequisite: 82.516.

82.560 Health Concerns in the Classroom (3) - Focuses on health problems of the school-age population and the educator's role in the classroom management of these problems. Health mandates, acute and chronic health conditions of childhood and adolescence, and strategies for maintaining a healthy classroom environment are presented, including the medically fragile child in the classroom.

82.590 Thesis (6) - Available as an elective. Prerequisite: see clinical option advisor.

## MDT (86) Medical Technology

Administered by Department of Biological and Allied Health Sciences

86.401 Clinical Microbiology (6-10) - A lecture and laboratory study of bacteria, fungi, parasites and viruses which cause disease in humans, their clinical pathology and related diagnostic laboratory procedures.

86.402 Clinical Hematology/ Coagulation (6-10) - A lecture and laboratory study of hematopoiesis and blood coagulation. Students acquire an understanding of the theory of hematological tests, skills in the performance of these tests, knowledge of blood disorders and insight into the significance of test results.

86.403 Clinical Chemistry for Medical Technologists (6-10) - Lecture and laboratory study of enzymes, carbohydrates, lipids, proteins, nitrogenous end products, electrolytes, acid-base balance, body fluids, toxicology, endocrinology and urinalysis. Lecture series includes anatomy, physiology, methods of analysis and clinical significance of each biochemical determination. Laboratory study includes standardization and quality control of procedures using spectrophotometry, chromatography, electrophoresis and automated techniques.

86.404 Clinical Immunohematology (3-6) - Lecture and laboratory study of blood groups, genetics, antigens and antibodies and their interaction as related to safe transfusion, prediction of immune incompatibilities and probability of parentage. Donor collection, processing, blood component preparation and therapy also studied.

86.405 Clinical Immunology/Serology (2-4) - Lecture and laboratory study of immunological concepts and theory and their relation to serologic reactions and clinical interpretations.

86.406 Clinical Seminar (1-6) - Covers courses not included above, such as orientation, laboratory management, education, clinical microscopy and/or areas unique to the individual hospital program

## BUS (90) General Business

Administered by Department of Business Education and Office Information Systems

90.101 Introduction to Business (3) - Provides a study of business and its environment organization, operation and interrelationships with government and society. Business majors develop a broad base for further study in a specific area in business, while other majors become familiar with the American enterprise system and the functions and issues facing business today. Prerequisite: Not open to business administration degree students with 6 or more semester hours in business.

90.333 Business Communications and Report Writing (3) - Applies theories and principles of effective communication to solve common business problems. Psychological and organizational strategies are used in writing business reports and other documents. Prerequisite:

junior or senior standing.

- 90.341 Principles of Selling (3) - Includes a study of selling as a profession, preparation for successful selling, steps and procedures associated with the sales process and special selling topics. Students apply sales principles and techniques while conducting sales presentations. Prerequisite: junior standing.
- 90.350 Valuing Diversity in Business (3) - A study of the challenges and opportunities presented to businesses in the United States by an emerging multicultural society. Explores cultural heritage, values, beliefs and prejudices and the effects of privilege and oppression upon individuals organizations and businesses, as well as possible solutions.
- 90.402 Instructional Strategies and Assessment in Business, Computer and Information Technology (3) - This course emphasizes a variety of instructional strategies and assessment techniques for teaching business, computer and information technology courses. Prerequisites: senior level, schedule semester prior to student teaching.
- 90.403 BCIT Field Experience (1) - Initiates an awareness of the teaching and learning atmosphere of the professional teacher in the classroom. Students provided opportunities to undertake the responsibilities assigned to a classroom teacher, including assuming some of the teaching role competencies. Must be scheduled the semester prior to student teaching. Prerequisite: Admission to teacher education.
- 90.404 Professional Semester in BCIT (12) -Includes orientation experiences to observe the operation of a school and specific classes as well as 16 weeks of participatory teaching experiences correlated with classroom studies under full-time supervision. Must be scheduled concurrently with 90.406.
- 90.406 Clinical Studies in BCIT (3) - Presents seminars on principles of education for business, computer and information technology teachers, instructional strategies for teaching business subjects, assessments and problems of classroom teaching. Classroom discussions closely correlated with the experiences of 90.404. and the four domains of the conceptual framework for professional practice.
- 90.431 Independent Study in Business (1-3) -Topic and outline of project must be approved by the department chairperson and dean of the college. Prerequisite: Open to seniors only.
- 90.432 Internship in Business (1-6) - Provides students with opportunities to acquire practical experiences in work situations in office systems. Prerequisites: Approval by department chairperson; GPA of 2.50 and 80 semester hours earned.
- 90.460 Business and Office Workshop (1-3) - Students acquire an awareness and understanding of the knowledge pertaining to the professional development and improvement of business skills, the enhancement of business and office education as a professional responsibility and their role in the business world.

90.498 Special Topics in Business Education and Office Systems (1-3) - A study of the aspects of business education or office systems. Not available as a regular course offering.

90.560 Business and Office Education Workshop (1-3) - Addresses those educational ideas and experiences that encourage, support, and guide participants to acquire an increased understanding of the accumulated knowledge pertaining to the development of business skills, enhancement of business education as a profession, and determination of a business and office personnel's responsibility and role in the business world.

90.564 Business Education Program Management and Development (3) - Studies basic management and curriculum theory as it applies to business education program administration and supervision. Course approached from the perspectives of planning, organizing, staffing, directing, and controlling.

90.581 Seminar in Business Education (3) - Investigates and evaluates completed research in business education on particular topic area(s). Students submit written reports which are used as the basis for class discussions.

90.590 Master's Thesis in Business Education (6)

90.599 Special Topics in Business Education and Office Systems (3) - Studies current or advanced topics in the field of business teacher education and/or office systems not normally presented in other courses.

## ACC (91) Accounting

Administered by Department of Accounting

91.120 Accounting for Small Business (3) - Familiarize students with accounting principles and practices applicable to small business organizations. For non-accounting majors.

91.220 Financial Accounting (3) - Familiarizes students with a basic understanding of generally accepted accounting principles and their applications. Includes sole proprietorship, partnership and corporate accounting. General ledger and/or spreadsheet computerized accounting required. For non-accounting majors only.

91.221 Principles of Accounting I (3) - Presents the accounting cycle covering both service and merchandising activities of a sole proprietorship; special journals and special ledgers, accrued and deferred items and receivables and inventories. General ledger and/or spreadsheet computerized accounting is required.

91.222 Principles of Accounting II (3) - Further develops the accounting cycle; recording, summarizing, interpreting financial data for partnerships and corporations. Includes cash flow, long-term liabilities, plant assets and payroll accounting. A practice set and general ledger and/or spreadsheet computerized accounting are required.

Prerequisites: 91.220 or 91.221.

91.223 Managerial Accounting (3) - Presents volume-cost-profit analysis, special decisions, operational and finan-

- cial budgeting, control and performance evaluation, job-order, variance analysis, cost allocation, quantitative decision-making techniques, and analysis of financial statements. Students are expected to be proficient in the general use of spreadsheets. Prerequisites: 91.220 or 91.221 and 92.150.
- 91.320 International Accounting (3) - Addresses needs of accounting and finance students wishing to become more qualified in accounting on a global perspective. Provides an international accounting component for students who have completed foundation courses. Prerequisites: 91.220 or 91.222. Meets cultural diversity requirement.
- 91.321 Intermediate Accounting I (3) - Presents the conceptual framework of accounting, accounting environment and information processing system, financial statements and the accounting standards regarding present and future value concepts, cash and receivables, temporary investments, inventories, and short-term liabilities. Requires the use of spreadsheets to solve computer assignments.
- Prerequisite: 91.220 or 91.222.
- 91.322 Intermediate Accounting II (3) - Presents accounting standards for property, plant, and equipment, intangible assets, long-term debts by borrower and lender, formation of corporations and stockholders equity, retained earnings, stock rights and options. Requires students to use an approved word processing software package to produce a research paper. Prerequisite: 91.321.
- 91.323 Intermediate Accounting III (3) Presents accounting standards pertaining to statements of cash flows, pension plans, leases, earnings per share, income taxes, accounting changes and error corrections and financial reporting and changing prices. Use of Lotus 1-2-3 to solve computer problems in each chapter is required. Prerequisite: 91.321.
- 91.324 Federal Tax Accounting (3) - Introduces basic tax laws pertaining to preparation of individual federal tax returns and supporting schedules. Emphasis on tax law research using federal tax services and contemporary professional literature. Prerequisite: 91.321.
- 91.342 Auditing Theory and Procedure (3) - Outlines principles, standards, procedures, and techniques applicable to internal and public auditing; consideration of the audit report and development of working papers for preparation of the report. 3 credit hours. Prerequisites: 91.322 and 40.346.
- 91.348 Cost Accounting (3) - In-depth study of the primary issues of cost accounting including, quality, process costing, and job order costing. Prerequisite: 91.321.
- 91.424 Advanced Federal Tax Accounting (3) Assigns group and individual projects selected from the following areas of advanced tax accounting; partnerships and corporations, Pennsylvania corporate taxes, estates and trusts, reporting to governmental agencies. Includes lectures, discussion of issues and practice in the solution of problems. Prerequisite: 91.324.
- 91.430 Advanced Accounting I (3) Applies accounting principles to special problems in the consolidation and merger of business enterprises. Includes consideration of the basis for such combinations, consolidated statements on date of acquisition as well as at subsequent dates with special emphasis on design, construction and utilization of integrated microcomputer-generated worksheets and financial statements. Prerequisite: 91.322.
- 91.431 Advanced Accounting II (3) - Focuses on accounting principles and practices of governments and non-profit institutions. Includes partnerships, estates, trusts and bankruptcy accounting. Prerequisite: 91.322 or consent of the instructor.
- 91.432 Internship in Accounting (6) - Provides work experience in the accounting profession. Prerequisites: 80 earned semester hours completed, a minimum cumulative grade point average of 2.50 and adequate course preparation for the tasks to be performed.
- 91.448 Advanced Cost Accounting (3) - Continuation of 91.348, concentrating on standard cost and budgets. Emphasis on methods used to analyze and interpret cost data. Prerequisite: 91.348.
- 91.449 CPA Problems (3) - Addresses the application of procedures for the solving of a cross section of complex accounting problems and the discussion of theory and practice. Prerequisites: 91.324, 91.342 and 91.348; senior standing or consent of the instructor.
- 91.498 Special Topics: Introduction to Healthcare (3) - Introductory management and leadership skills for the health professional, who by education and background is prepared not to manage but to practice a profession, but nevertheless finds her/himself in a management position.
- 91.501 Financial Accounting (3) - Emphasis on asset valuation, income determination, and financial accounting principles, with selected topics from the cash flow statements and interpretation of financial statements. Prerequisite: 91.321.
- 91.502 Advanced Financial Accounting (3) - Advanced problems in consolidated statements, stockbroker's equity, partnerships, fiduciary accounting, and selected topics dealing with government units and nonprofit service organizations. Selected reference to professional literature and uniform CPA examination problems. Prerequisite: 91.501
- 91.503 Government and Fund Accounting (3) - Accounting principles and practices of governments and nonprofit institutions. Comparisons between accounting principles and practices that apply to governments and nonprofit institutions and those which are generally accepted in business.
- 91.504 Foundations of Financial Accounting (3) - Introductory course in financial accounting for those who have not had any formal accounting courses. Covers the cycle for both service and merchandising activities in corporate form of business. Emphasizes asset valuation, income determination and cash flows under generally

accepted accounting principles. The effects on financial statements of accounting for the following topics are studied: current assets and current liabilities, revenue and expense recognition, operating assets, intangible assets, long-term investment, long-term liabilities, capital and operating leases, pensions and other post-retirement benefits and financial statement disclosures. Financial statement analysis and interpretation are included. Actual financial statements, case studies and current readings are used throughout the course to aid the students' understanding of the topics covered. Course limited to MBA Level I students.

- 91.521 Advanced Cost Accounting (3) - In-depth study of strategic management accounting concepts and the structure, implementation and maintenance of cost/management accounting information systems that add value to organizations.
- 91.522 Advanced Auditing Theory (3) - In-depth examination of the audit process, including compliance with GAAS, ethical considerations, EDP auditing, use of statistical analyses, as well as current problems facing the auditing profession.
- 91.523 Advanced Tax Accounting (3) - This course explores the choices made by the government in creating the taxation system. Various methods of taxation and the pros and cons of those methods will be explored and discussed..
- 91.524 Managerial Accounting (3) - This course is an introduction to the tools, techniques, procedures and processes employed to provide information for management decision-making.
- 91.551 International Accounting (3) - Addresses the global nature of accounting in the current business environment. Prerequisite: 91.220 or 91.222.
- 91.552 Controllorship Accounting (3) - An integrating course dealing with administrative problems of the accounting function; internal control system design and maintenance; relations with audit committee, CPA firm, and regulatory agencies pertaining to internal and external reporting.
- 91.553 Special Topics In Accounting (3) - This course addresses a variety of topics in accounting and allows the instructor to focus on appropriate current topics in the accounting profession. Students should contact the instructor prior to enrollment.

## CIS (92) Computer and Information Systems

Administered by Department of Computer and Information Systems

- 92.140 Introduction to Computer and Information Science (3) - An introduction to information systems. Provides an overview of curriculum and careers in IS. Emphasizes capturing, storing and retrieving data, web site development and relational database concepts. Hands-on component: Html, UNIX, Access.
- 92.141 Introduction to Business Information System Development (3) - An introduction to the development of business information systems emphasizing database management. Key topics include basic system concepts, the system development life cycle, rapid prototyping, and database management principles. Students will develop simple information systems using a database management system and a web interfaces. Basic SQL will be introduced. Prerequisite: 92.140.
- 92.150 Introduction to Information Technology (3) - Introduces computer-based systems and their use in problem solving and information processing. Includes a study of hardware and software concepts, data management, data communications and system development. Involves hands-on experience with word processing, spreadsheet and file management software using networked microcomputers.
- 92.240 Introduction to Programming I (3) - An introduction to programming and problem solving. The course focuses on how to write a structured, modular program in a current programming language. Problem solving methods are stressed. Examines data representation, control structures, algorithmic development using a high-level language on a UNIX platform. Prerequisite: 92.141.
- 92.241 Introduction to Programming II (3) - A continuation of 92.240. Emphasizes object-oriented programming. Students learn how to create event-driven programs that involve a graphic user interface. The course focuses on how to write object-oriented programs. Examines objects, inheritance, containers, file I/O and exception handling using a high-level language on a UNIX platform. The course includes a two-hour lab. Prerequisite: 92.240.
- 92.351 Systems Analysis and Design (3) - Provides an opportunity to bring together experiences in CIS courses, other business courses and life to create usable business information systems. Helps develop skills required for successful business system development. Prerequisites: 92.252.
- 92.254 Management Information Systems (3) - A study of how computer-based information systems provide information for effective decision making. Includes: structured analysis, design techniques, database concepts, person-machine interaction, data retrieval and telecommunications. Focuses on the use of information technology in the modern business. Prerequisites: 92.150 or 56.110 or equivalent.
- 92.346 Advanced Programming (3) - Presents advanced concepts of programming in COBOL with major emphasis on indexed sequential files, interactive programming, subroutine linkage, random files and SQL RDBMS programming concepts. Prerequisites: 92.252.
- 92.354 Data Base Processing Systems (3) - Details and examines data base terminology organization and models. Analysis, design and administration of a relational compatible data base explored through applicable programming experiences. Prerequisite: 92.256 or 56.355.
- 92.356 Data and Information Structures (3) - Studies stan-

dard data and file structures and algorithms for creation and manipulation of these structures. Explores rationale for use of structures under varying circumstances from both a practical and theoretical perspective. Involves computer exercises implementing selected algorithms in a suitable high-level language on a UNIX platform. Prerequisite: 92.177 and 92.252.

92.356 Operating Systems (3) - Presents an overview of operating systems including real and virtual operating systems and communications software and techniques. Includes diagnostic facilities, utility routines and system commands. Provides a detailed look at UNIX. Prerequisite: 92.350.

92.358 Data Communication Systems (Spring) (3) - Data communications terminology, technology and the functional characteristics of communications hardware and software detailed and explored. Emphasizes systems and programming considerations as related to a commercial environment. Prerequisite: 92.256 or 56.355.

92.362 COBOL (3) - Detailed study of structured problem solving in a business environment. Explores logical and physical structures, data representation, modular design, structured programming and documentation. Presents processing techniques for one and two-level tables, data validation, control break logic and sequential file processing. Students develop increasingly complex programs using COBOL in a UNIX environment. Prerequisite: 92.177 or 56.121.

92.364 Fundamentals of Electronic Commerce (3) - This course explores the rapidly-growing field of Electronic Commerce (EC). The communications infrastructure required to implement EC will be studied, particularly the Internet. The related issues of transaction security and privacy will be explored. consumer-oriented EC will be studied. Students will explore how businesses are utilizing EC to gain a competitive advantage.

92.432 Internship in Computer and Information Systems (6) - An educational arrangement between the student and an approved industrial, business or government agency that provides a supervised work experience in a professional area of computer and information science. The experience relates to the academic principles and theories upon which the Computer and Information Systems curriculum is based. Prerequisites: Grade point average of 2.5 and 80 semester hours.

92.450 Expert Systems and Artificial Intelligence (Fall) (3) - A survey of basic concepts and techniques of expert systems and artificial intelligence applied to commercial information systems. Examines knowledge acquisition, representation, storage and inferencing methods used in expert systems. Stresses applications and illustrations from the business environment. Prerequisite: 92.256 or 56.355.

92.460 Advanced Systems Development I (3) - First of a two-semester course sequence during which students will work on teams to analyze a business problem and design and implement a computer-based solution. during the first semester, project management techniques and tools will be covered. Students will work in teams to

implement the solution to a business problem. Prerequisite: 92.324 and senior standing.

92.461 Advanced Systems Development II (3) - Second of a two-semester course sequence during which students will work on teams to analyze a business problem and design and implement a computer-based solution. Students will work in teams to implement the solution to a business problem developed in 92.460. The team will make a presentation of its project to a group of IS professionals. Prerequisite: 92.460.

92.498 Special Topics (3) - Examines current or advanced issues in the field of computer and information systems not normally examined in depth in other courses.

92.550 Information Processing (3) - A comprehensive introduction and basic orientation to the use of information processing in the educational environment. Students required to investigate the impact of the computer and associated peripheral devices on the classroom. Emphasis on the effective use of available computer resources.

92.554 Management Information Systems (3) - Studies information analysis and systems design from the user's point of view. Students identify the basic concepts of systems point of view organization as a system, information flows and nature of management information systems. Data bases and data base management systems will be investigated from the manager's perspective.

## MGT (93) Management

Administered by Department of Management

93.244 Principles of Management (3) - Administrative organizational and behavioral theories and functions of management, contributing to the effective and efficient accomplishment of organizational objectives. Prerequisites: 45 semester hours earned.

93.345 Human Resource Management (3) - Equips students with tools and procedures to address human resource issues and problems. Prerequisite: 93.344.

93.346 Labor and Industrial Relations (3) - Describes administration of the relationship between management and the labor force, both where that relationship is governed by a collective bargaining agreement and where it is not. Includes development of the social and legal status of trade unions organizing, negotiations, strikes, grievance procedure and union security. Prerequisite: 93.344.

93.347 Management Science (3) -Covers quantitative models such as linear programming, goal programming, inventory models, forecasting models, PERT/CPM in dealing with the dynamics of manufacturing/service operations in an organization. Prerequisites: 53.141, 40.346, 93.344 and either 40.246 or 53.123.

93.348 Operations Management (3) - Educates and trains students to deal with the operational issues and problems in manufacturing and services. Prerequisites: 53.141, 40.346, 40.246 or 53.123.

93.350 Quality Management (3) - Introduces students to the

major concepts and techniques used in quality management and control.

93.355 Managing Multicultural Organizations (3) - Studies the impact of increasing diversity in terms of gender, race, ethnicity and nationality on management practice of multicultural organizations through enhanced decision making. Examines ways in which diversity can be used to strengthen organizations through enhanced decision making, creativity, innovation, and expanding international and ethnic markets. Examines strategies for building and maintaining functional multicultural organizations by reducing turnover, interpersonal and conflict and communication barriers. The course emphasizes workplace equity. Prerequisite: 93.344.

93.362 Organizational Design (3) - Discusses the differences between micro and macro perspectives in the study of organization and provides a macro view in which the organization is the unit of analyses as opposed to individual members. Provides students with an in-depth understanding of how organizations are formed and how external as well as internal factors influence the structure and design of the organizations. Also explores variables for designing and managing organizations. Prerequisite: 93.344.

93.391 Small Business Management (3) - Introduces environment of small business in the United States. Describes types of small business and problems associated with each type. Covers ownership, start up, franchising, finance, accounting, personnel, risk management, inventory, advertising and marketing and production processes. Special emphasis is given to incentives and legal requirements of Pennsylvania with regard to small businesses. Prerequisites: 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.

93.400 Entrepreneurship (3) - This course focuses on three major issues: 1) how to launch new ventures: creating and assessing opportunities and the associated risks in their right perspectives; 2) managing innovation and entrepreneurship in an ongoing business; and 3) attracting venture capital to new business opportunities.

93.432 Internship in Management (3-6) - Integrates classroom experience and practical work experience in industrial, business or government work situations. Allows students to translate academic theories and principles into action, to test career interests and to develop skills and abilities through carefully planned and supervised problems related to the field of management. Prerequisites: 93.344 or approval of internship supervisor, GPA of 2.50, 80 semester hours and major or minor in business administration.

93.440 Small Business Institute Seminar (1-3) - Teams of students work with local businesses in a consultancy capacity to aid small businesses while applying business principles. Work includes analysis of a problem, determination of alternative solutions, recommendation of the optimum course of action by means of an oral presentation to business owners. Prerequisite: GPA of 2.5, 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.

93.445 Managerial Communications (3) - Prepares students

for effective managerial communication by providing preparation in the process and structure of communication in a professional setting. Prerequisites: 20.101, 20.201, 25.103 and 93.344.

93.449 Organizational Behavior (3) - Provides the tools and theories regarding personal, interpersonal and group processes within the organization at the micro level. Prerequisite: 93.344.

93.456 International Management (3) - Develops and understanding of the issues related to international business environment, refines this knowledge by the analysis of current economical, social and political issues that can influence international and global companies and prepares students to analyze international business issues as a manager of a multinational/global company. Prerequisite: 93.344. Diversity course.

93.457 Business and Society (3) - Prepares students to manage social responsibility and ethics issues related to business operations and the interests of multiple stakeholders. Prerequisites: 96 semester hours earned, 20.101, 20.201, 25.103, 93.344, 96.313, 97.310 and 98.331.

93.463 Employee Staffing (3) - Examines the procedures used by companies to recruit and hire employees. Students learn how organizations seek to improve effectiveness by ensuring each job is legally staffed by a fully capable individual. Topics covered include job analysis, employee recruitment, selection techniques, validation procedures and legal restraints on employee selection practices. Prerequisite: 93.345

93.464 Compensation Management (3) - Examines how the development of a firm's compensation system. Students learn how companies design their compensation systems in an effort to enhance their recruiting, motivation and retention of employees. Topics covered include job evaluation, salary surveys, pay-for-performance programs, legal issues, and the design and evaluation of employee benefits packages. Prerequisite: 93.345

93.481 Business Policies and Strategies (3) - Prepares students in the area of strategic decision-making for the total organization through strategic formulation and administration using integrative analysis and strategic planning and process. Prerequisites: 110 semester hours earned, 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.

93.498 Special Topics - Management (3) - Examines current or advanced issues in the field of management not normally examined in depth in other courses. Prerequisite: approval of the department chairperson.

93.500 Managerial Principles (3) - Focuses on the fundamentals of the practice of management, including administrative, organizational and behavioral theories. Explores the functions of management and the aspects of the organizational environment. Prerequisite: graduate standing.

93.511 Statistical Analysis (3) - Covers statistical inference and its application to the commonly used methods of estimation, hypotheses testing, prediction and decision making relevant to business and managerial problems.

Prerequisites: (All level I courses shall be taken in advance).

- 93.512 Managerial Economics (3) - Covers economic analysis of the firm and its environment. Addresses issues of input/output, employment, capital markets, infrastructure, labor pool and resources in relation to organizational decisions. Prerequisites: (All level I courses shall be taken in advance).
- 93.520 Business Research Methods (3) - Assists students in developing knowledge of business research methods, suitable for workplace application, to enable solutions and recommendations founded on legitimate and efficient data and information. Content includes research process, research design, sources, collection and analysis of data, and presentation of results and recommendations. Prerequisites: All Level I courses, 93.511.
- 93.532 Professional Development Skills (3) - This course will help students examine themselves and discover strengths and weaknesses, develop a personal mission statement and career goals, and develop skills and self-knowledge essential to effective management. Bulk of class time will focus on self-assessment or skill development and provide a foundation for enhanced success in the MBA program and continued development in future careers.
- 93.540 Small Business Institute Seminar (3) - Provides experience in applying theoretical concepts to practical decision-making activities for entrepreneurs and small-businesses. The students work with small-business owners in the community to provide strategic planning and necessary consulting in implementation of the plan. Prerequisites: 91.254; 97.551; 96.535. Prerequisites: (All level I courses shall be taken in advance).
- 93.545 Graduate Human Resource Management (3) - Equips students with tools and procedures to address human resource issues and problems.
- 93.547 Qualitative Models for Management (3) - Assists students in developing working knowledge of operations research models and methods so they can apply them in business environments. Specifically, desired outcomes include the ability to translate business problems into the appropriate mathematical formulation, apply the correct quantitative model and interpret the results, using sensitivity analysis to respond to "what if" managerial challenges. Prerequisites: All Level I courses, 93.511.
- 93.548 Decision Models for Managers (3) - Assists students in developing working knowledge of decision making models and methods so they can apply them in business environments. Desired outcomes include the ability to translate business problems into appropriate decision models, taking into account individual and organizational preference structures and environmental uncertainty. Prerequisites: All level I courses, 93.511.
- 93.550 Quality Management (3) - This course introduces students to quality management philosophies that have developed over the past 20 years, including those of Deming, Juran and Crosby. It provides students with opportunities to learn and apply various problem-solving tools, to recognize strengths and weaknesses of various

management programs, activities and paradigms, and to understand and apply statistics-based process evaluation and improvement. The course includes opportunities to work on applied problems from the student's own workplace and prepare results suitable for management presentations. Prerequisites: All Level I courses, 93.511.

- 93.556 International Management (3) - Focuses on dynamic changes in international business environment and increased foreign competition that challenge managers. Addresses international issues and understanding of their impact on markets, products and services. Develops understanding of international business environment and issues that have the potential of enhancing an enterprise's survival and success. Prerequisites: (All level I courses shall be taken in advance).
- 93.558 Social Responsibility and Business Ethics (3) - Focuses on theories, concepts and tools for managing social responsibility and ethics in different organizational settings. Prerequisites: 91.524; 97.551; 96.535; (All level I courses shall be taken in advance).
- 93.560 Operations Management (3) - Analyzes manufacturing and service systems and application of managerial decision-making in resolving operational policy problems. Prerequisites: 93.511. (All level I courses shall be taken in advance).
- 93.562 Organizational Theory (3) - Provides a macro level understanding of organizational structure, processes and management of external organizational relationships. Prerequisites: (All level I courses shall be taken in advance).
- 93.563 Quantitative Models for Management (3) - Covers quantitative models in dealing with the dynamics of manufacturing/service operations in an organization. Prerequisites: 93.511. (All level I courses shall be taken in advance).
- 93.566 Organization Behavior (3) - Focuses on human aspects of an organization, groups and individuals. Addresses behavioral concepts and theories in leadership, motivation, performance appraisal, stress, job satisfaction and inter- and intra-group processes.
- 93.567 People Management Skills (3) - This is an experiential, skill-building course that focuses on the development of interpersonal management skills. Students enhance their skills in areas of supportive communication, managing conflict, motivating employees, delegating responsibilities, developing and managing work teams, managing problem employees and facilitating change.
- 93.581 Strategic Management (3) - Examines complex industrial situations to determine better strategies to ensure a firm's long-run survival and growth in competitive markets. Emphasizes problem solving skills and implementation of optimal decisions. Examines the factors that can result in performance differentials by understanding how a firm attains a superior performance. Analyzes and investigates strategic problem-solving processes that can enhance control of the firm over the market and competition. Prerequisites: Capstone

course, to be taken in graduating semester; 91.524; 93.511; 96.535; 97.551; 93.560; 93.566. (All level I courses shall be taken in advance).

93.582 HR Skills for Managers (3) - This course covers the skills needed by managers to effectively implement practices to help an organization deal effectively with its people during various phases of the employment process. Through experiential methods, such as case studies and role-plays, students learn how to perform such HR tasks as interview job applicants, provide and communicate job performance ratings and carry out disciplinary procedures, all within the context of prevailing legal and ethical standards.

93.583 Human Resources Development (3) - Focuses on current research and theories related to management and development of human resources in organizational settings. Emphasizes theories related to motivation, training and development, leadership, behavior and performance in an organization.

93.584 Seminar on Leadership (3) - This course examines theories of leadership and sources and uses of power in the organization. Assumptions, beliefs and styles of leadership in the context of organizational culture, productivity, performance and effectiveness will be examined through case studies. Employee compliance, control as well as satisfaction; stakeholders' support, commitment as well as satisfaction issues will be addressed through in-depth studies of effective leaders of select private, public and human services organizations. Organizational vision, mission and social and ethical responsibilities, and workforce diversity will be discussed in the context of transformational leadership. Prerequisites: Minimum 80 hours earned, English Composition 2 or Honors Composition, Public Speaking, Principles of Management, Minimum QPA 3.3.

93.599 Special Topic (3) - Addresses a variety of advanced topics in management at the graduate level and permits the instructor to focus on issues of particular importance and interest to the discipline. Prerequisites: Approval of the department curriculum Committee and the chair. (All level I courses shall be taken in advance).

## **OIS (94) Office Information Systems**

Administered by Department of Business Education and Office Information Systems

94.221 Office Systems Concepts (3) - An overview of office systems-technology, people and procedures within organizational and environmental contexts. Major technologies that support information creation, storage, retrieval, manipulation and distribution are covered.

94.222 End User Project Management (3) - Presents the student with an opportunity to use project management tools and an office suite to design, implement and evaluate end-user solutions for an office information systems environment.

94.302 End User Solutions Development (3) - Presents the

student with an opportunity to develop application solutions for business office suites using Object Oriented Macro Language (OOML), a programming language supported by many popular business applications. The use of OOML greatly increases the productive value of these office suites.

94.330 Telecommunications (Spring only) (3) - An introduction to telecommunications in the business environment. Emphasis on application of telecommunications to facilitate information interchange in whatever form the information takes: data, voice, text and image. Prerequisite: Junior standing.

94.340 Network Design and Administration (Spring Only) (3) - Provides a comprehensive and practical knowledge of network management and enhancement. Students get practical experience working with software, hardware, customizing user environments, implementing technology security and enhancing and troubleshooting the computing environment. Prerequisite: 92.150, junior standing and permission of department.

94.405 Training and Development in Office Systems (Fall only) (3) - Application of theories of learning and instructional development to the education and training of employees in office systems. Topics include instructional design, technology and the implementation, evaluation and management of training in an organizational environment. Prerequisite: Senior standing or 64 credits.

94.407 Information and Office Environment Management (Fall only) (3) - Provides acceptable practices in the management of information and the office environment. Students will develop an understanding of the information life cycle, the importance of an ergonomically designed work environment and how information serves as a critical organizational asset. Topics include: records management systems, human factors in the office environment (ergonomics), workflow and spatial design and layout. Prerequisites: 94.221, 94.302, 90.333, senior standing.

94.500 Office Systems and Information (3) - An overview of office systems - people, technology, and procedures within organizational and environmental contexts. Provides an understanding of the evolving role of the office as a key information systems center.

94.510 Office Systems Applications (3) - Discusses applications of office automation technologies to enhance productivity of office employees from support personnel to managers. Hands-on experience includes comparative and selective techniques for hardware and software, as well as an evaluation of appropriate training materials for support personnel.

94.520 Administrative Communications (3) - Provides application of communication skills for those professionals who work in environments with automated information and communication systems. Topics include: oral and written reports, systems-related documents (reports, proposals, procedures) - , research methods, and information technology.

94.530 Telecommunications (3) - Introduction to telecom-

munications in the business environment. Topics include: telephony, data codes, protocols, network architectures, local area networks, communications media, hardware, and software. Management issues and practical applications are an integral part of the course. Emphasizes the application of telecommunications to facilitate information interchange in whatever form the information takes: voice, data, text, and image.

94.540 Training and Development (3) - Applies theories of learning and instructional procedures to education and training of employees in office systems. Topics include: instructional design, strategies, technology, and implementation, evaluation, and management of training with the organizational structure.

94.550 Integrated Office Systems (3) - Capstone course of office systems curriculum. Includes a synthesis and an application of concepts related to current office systems topics. Students should enroll in this course during the last semester of the degree program. Prerequisite: 94.500, 94.540 or consent of the instructor.

## FIN (96) Finance

Administered by Department of Finance and Legal Studies

96.120 Personal Finance (3) - This course presents information that the students of the course will find useful when they move through life, regardless of their respective career choices. The general topics covered will be personal financial planning, consumer credit, insurance (health, disability, liability, home, and automobile), investing principles and sources of capital, and retirement planning and their impact upon individuals and small business owners.

96.313 Introduction to Corporate Finance (3) - Studies financial management in the areas of asset valuation, risk, working capital management, capital budgeting, cost of capital, financial structure, financing sources and dividend policy. Prerequisites: 91.223, 40.121, 40.122, 91.220.

96.323 Financial Markets and Institutions (3) - Studies short-term money market and long-term capital market instruments, major financial institutions, the relationship between interest rates and security prices and the role of the consumer and government in financial markets. Prerequisite: 96.313.

96.333 Commercial Bank Management (3) - Leads to the understanding of risk management in contemporary banking by studying the historical and contemporary impact of banking regulation, measures of bank performance and bank policy formation. Risk is shown to be managed through Asset/Liability Management (by the use of GAP Analysis), Investment Management, Liquidity Management, Capital Management, and Off-Balance Sheet Management. Prerequisite: 96.313.

96.343 Investment Management (3) - Outlines principles of security investments: descriptions of investments instruments, investment planning, security valuation, portfolio theory and strategy and security markets. Prerequisite: 96.313.

96.413 International Finance (3) - Studies the principles and practices relevant to understanding the nature of international finance, its problems and its institutions. Discussion centers on sources and instruments of international export and import financing, balance-of-payments, exchange rates, governmental regulations and policies, financial management, as well as accounting for international transactions. Prerequisite: 96.313.

96.423 Security Analysis and Portfolio Theory (3) - Detailed analysis of major elements related to determining the earnings and risk potential of securities and study of the underlying principles inherent to portfolio construction. Prerequisite: 96.343.

96.432 Internship in Finance(1-6) - Prerequisites: 96.313, junior or senior standing and GPA of 2.50.

96.440 Introduction to Options and Futures (3) - Detailed analysis of major elements affecting market prices of options and futures contracts and analysis of optimal investment strategies involving these derivative instruments. Prerequisite: 96.343.

96.454 Advanced Corporate Finance (3) - Studies business financial problems and the development of financial decision-making tools and practices as used in the decision-making role of the financial manager. Prerequisite: 96.313.

96.463 Seminar in Finance (3) - Explores a wide range of topics in finance, primarily focused in the area of financial management. Designed primarily for senior finance majors. Prerequisites: 96.313 and 96.343.

96.473 Seminar in Investments (3) - Examines a wide variety of topics in the field of investment management and portfolio theory. Designed primarily for Seniors majoring in finance. Prerequisites: 96.313 and 96.343.

96.499 Special Topics (3) - May address a variety of advanced topics in finance at the undergraduate level, and permits the instructor to focus on issues of particular importance and interest to the discipline. Students should contact the professor prior to enrollment.

96.535 Financial Management (3) - In-depth study of management activities involved in the financial aspects of business enterprise. Theoretical knowledge gained through exposure to financial management literature is applied to problem situations through the use of case studies and simulation techniques. Emphasis on the development of perspective in the decision-making process with the acquisition of tools to facilitate effective decision making. Prerequisites: 91.524, 93.511

96.540 International Finance (3) - Studies the principles and practices relevant to understanding the nature of international finance, its problems and its institutions. Discussion centers on sources and instruments of international export and import financing, exchange rates, balance-of-payments, governmental regulations and policies, financial management, as well as accounting for international transactions. Prerequisite: 96.313 Business Finance.

96.550 Security Analysis and Portfolio Management (3) - Advanced treatment of aspects involved in developing

a logical and systematic approach to analyzing and evaluating types of securities. Investment strategy and management of an investment portfolio. Theoretical aspects of security analysis and problems involved in analyzing and evaluating securities within the context of the type of industry issuing them.

96.599 Special Topics (3) - May address a variety of advanced topics in finance at the graduate level, and permits the instructor to focus on issues of particular importance and interest to the discipline. Students should contact the professor prior to enrollment.

## MKT (97) Marketing

Administered by Department of Marketing

97.110 Marketing: A Primer (1) - Introduces students to the field of marketing, the Department of Marketing and careers available in the discipline. Marketing etiquette and self-presentation skills are incorporated as well as resume writing and career preparation.

97.310 Marketing Principles and Practices(3) - Surveys the fundamental features of contemporary marketing systems and the planning required to make available satisfying goods and services to customers at a profit. Explains the role of marketing in society and the institutions which compose the market system. Describes components of the marketing mix-product planning, distribution, pricing and promotion. Prerequisite: 40.121, 40.122.

97.320 Marketing for Nonprofit Organizations (3) - Hospitals, social service agencies, universities, fraternities and sororities, political candidates, governments, churches and libraries are some of the nonprofit organizations which are challenged to effectively solve their marketing problems. Through understanding and by applying marketing theory and methods, students realize how they can aid organizations in developing a better product, price, distribution and promotion decisions for the publics they seek to serve. Prerequisite: 97.310.

97.330 Consumer Motivation and Behavior (3) - Analyzes the role of the consumer as the ultimate buyer of the product and the strategy and forces directed at the consumer by the seller. Topics include models of consumer buying behavior, consumer motivation, interpersonal and intrapersonal influence on the consumer as a decision maker in the market place. Prerequisite: 97.310, 48.101.

97.340 Advertising Management (3) - Studies the advertising element of the marketing/promotional program from a management perspective. Examines advertising's role in business and society. Advertising's use of the communication process is studied from a theoretical and practitioner's perspective. Development of an ad campaign is highlighted with emphasis on management decisions involved in planning and execution. Special attention given to budgeting, copywriting, media analysis and choice. Prerequisite: 97.310.

97.350 Retail Management Concepts (3) - Presents retailing as a dynamic aspect of the marketing/channels distribution system.

Consumer/marketing analysis, store location, store layout, merchandising, pricing, promotional issues and problems are considered. Prerequisites: 97.310, 40.122.

97.370 Sales Management (3) - Studies the personal selling element of the marketing/promotional program from a management perspective. Recruiting, selecting, training organizing, motivating, compensating, evaluating and controlling the sales force are treated, as well as management's planning responsibilities which include designing intelligence systems, forecasting and establishing sales territories. Special consideration is given to sales management's inputs and integration with marketing management. Prerequisite: 97.310.

97.380 International Marketing (3) - Applies the managerial process to the development of international marketing programs. Emphasizes the development and determination of objectives and methods of organization including the execution of research, advertising and distribution activities. Considers special problems of adopting marketing principles to fit conditions in different countries. Prerequisite: 97.310.

97.431 Independent Study in Marketing (3) - Develop research skills in an academic and experience-based setting through collaborative research with a faculty member. Apply marketing theory to an employment situation or research objective. Prerequisite: Nine semester hours in marketing.

97.432 Internship in Marketing (1-6) - Develops skills in an experiential setting that are not available in the academic classroom. Students learn to relate marketing principles and practices to an employment situation. Prerequisites: 97.310, 2.0 GPA, 80 semester hours and junior or senior standing.

97.440 Marketing Research (3) - Develops the skills of the scientific marketing research procedure (problem definition, research design, data collection, analysis and interpretation). Applies recent developments in marketing information systems to product planning, advertising research, consumer and competitive analysis. Prerequisites: 97.310, 97.330 and 40.256.

97.460 Marketing Management (3) - Presents an advanced study of the marketing programs from the systems and managerial viewpoint. Applies analytic, communicative and problem-solving skills to evaluation and creative planning in the marketing environment. Uses business marketing cases as a vehicle for developing the marketing executive's abilities. Prerequisites: 97.310, 97.330, 97.340.

97.480 Business-to-Business Marketing (3) - Strategies for marketing products and services to industrial, commercial and governmental markets. Changing industry and marketing structures are analyzed. Prerequisite: 97.310.

97.490 Contemporary Problems and Issues (3) - Explores major issues, trends and problems characterizing the current marketing environment. Encourages students to do extensive reading in current marketing and other related literature. Theoretical, environmental research and trade-off issues in marketing are assessed.

Case study, group projects and group dynamics are used. Prerequisites: senior standing and 6 semester hours in marketing.

97.510 Marketing Foundations (3) - This course provides an overview of the foundations for modern marketing theory and practice, analyzing marketing from both the societal as well as the managerial perspective. Components of the marketing mix including products and services, pricing, distribution systems and promotion mixes are emphasized. Prerequisite: graduate standing.

97.530 Strategic Buyer Behavior (3) - Covers concepts and theories from the behavioral sciences as they relate to marketing strategy formulation.

97.551 Marketing Management (3) - Develops the strategic application of marketing in an organization through the analysis of marketing activities. Integrates the analysis of global marketing opportunities, segmentation of target audiences, growth and competitive strategy, marketing research systems, buyer behavior and marketing mix development. Prerequisite: 97.510 or 97.310

97.552 Marketing Research (3) - Advanced techniques of the scientific marketing research procedure (problem definition, research design, data collection, analysis and interpretation). Focuses on an applied orientation for the global users of marketing research. Qualitative and quantitative research methods are developed with the statistical tools to produce a marketing research report.

97.599 Special Topics (3) - This course addresses a variety of topics in marketing and allows the instructor to focus on appropriate current topics in the marketing profession. Students should contact the instructor prior to enrollment to learn the current focus.

## BSL (98) Business Law

Administered by Department of Finance and Legal Studies

98.331 Law and the Legal Environment (3) - Covers the structure of the American legal, constitutional and regulatory system, the nature and sources of law, competing theories of law and the principles of law applicable to business, including administrative law, contracts and the UCC Article 2, torts and products liability, property and criminal law. Students must have earned 30 semester hours before enrolling in this course.

98.332 Business and Commercial Law (3) - Presents basic principles of commercial law (UCC), agency and such topics as debtor/creditor relations, business organizations and ethics. Prerequisite: 98.331.

98.340 Law and Literature (3) - An introduction to law and literature, both as an approach to the reading of legal texts and as a means of addressing issues in law, justice and morality as portrayed in works of fiction and other narratives. Modules include slavery, abortion, the death penalty, Native American law and literature and international law and literature.

98.407 International Legal Environment of Business (3) - Introduction to public and private international law as applied to the increasingly globalized business environment. Cases include: trade law; extraterritorial application of U.S. law; treaty law; U.S.-Japan structural impediments talks; the GATT; the European Community; multinational corporations; and environmental regulation. Prerequisite: 98.331 or consent of the instructor.

98.432 Internship In Legal Studies (3-6)

98.450 Legal Environment of Business (3) - Advanced coverage of topics in government regulation of business through administrative law, legislation and judicial intervention. May include issues in the law of corporate securities, antitrust, environmental regulations and other aspects of legal regulation of the competitive process. Prerequisites: 98.331 and Economics 40.212.

98.460 Employment Discrimination and Affirmative Action (3) - A survey of major federal laws that address equal opportunity in employment and focuses on types of job discrimination outlawed by Title VII of the 1964 Civil Rights Act. Legal and ethical issues relating to affirmative action programs are discussed, as are state and local laws addressing employment discrimination.

98.499 Special Topics (3) - May address a variety of advanced topics in finance at the undergraduate level, and permits the instructor to focus on issues of particular importance and interest to the discipline. Students should contact the professor prior to enrollment.

98.507 International Legal Environment of Business (3) - Introduction to public and private international law as applied to the increasingly globalized business environment. Cases include: Trade law; extraterritorial application of U.S. law; treaty law; U.S.-Japan relations; NAFTA and the GATT; European Union; multinational corporations; human rights, labor, communications, and environmental regulation in the international system.

98.599 Special Topics (3) - Addresses a variety of topics in law and legal elements and allows the instructor to focus on appropriate current topics in law and business. Students should contact the instructor prior to enrollment.

# Academic Policies

## PRP 3050

### Field Experiences for Teacher Education

Issued by: Dr. Betty D. Allamong, Provost and VPAA  
Effective Date: Sept. 87

Notes: Approved by BUCC, 9/3/87

#### *I. Number And Quality Of Field Experiences.*

A. A five- to ten-day noncredit field experience for all teacher education students shall occur in the freshman year or at the earliest possible time in case of transfer or non-traditional students. Departments shall review continually and update the nature of this field experience.

B. One credit courses or equivalent experiences shall be required in the sophomore and junior year or at the earliest possible time in the case of transfer or non-traditional students. These courses or experiences shall be supervised by faculty members.

C. A full semester of student teaching shall be required as the senior year field experience or at the earliest possible time in the case of transfer or non-traditional students.

D. Departments shall review continually graduate level field experiences in regard to generic and specific competencies.

#### *II. Supervision Of The Sophomore And Junior Field Experiences.*

A. The sophomore and junior level field experiences shall be supervised by a faculty member. The number of students per faculty member shall depend upon the design of the field experience.

B. Departments shall develop formal devices such as logs, observation sheets, workbooks and evaluation forms, to provide documentation. The faculty supervisor and cooperating teacher shall be required to evaluate formally the student.

#### *III. Supervision Of Student Teaching Or Clinical Experiences.*

Recognizing that the distance to be traveled and needs of individual students will impact upon the specific requirements placed on supervisors, the following are established as minimum criteria:

A. Supervisors of student teachers shall make a minimum of four visits per half semester, two of which should be formal observations.

B. A visit is defined as a discussion with the cooperating teacher, student teacher, and supervisor concerning the progress of the student teacher. An observation consists of at least a review of the lesson plan, observation of the lesson, and post conference with appropriate feedback.

C. Documentation is required of all observations made by the student teacher supervisors. Three copies of the observation form should be made. The student teacher and cooperating teacher shall be given a copy of the observation form, and the supervisor shall retain a copy for the his/her records.

D. It is required that the cooperating teacher conduct at least two formal observations of the student teacher per week using appropriate observation instruments.

#### *IV. The Relationship Of The Student Teaching/Clinical Evaluation Form To The Bloomsburg University Teacher Education - Generic And Specific Competencies In Teacher Education.*

All teacher education departments shall develop evaluation instruments based on the Bloomsburg University Teacher Education Generic and Specific Competencies in each area of teacher certification.

#### *V. Field Experience Centers.*

It is strongly recommended that each teacher education department establish field experience centers which exemplify the teaching principles taught in teacher education programs at Bloomsburg University.

#### *VI. The Nature Of Evaluating And Grading Field Experiences And Student Teaching/Clinical Experiences.*

1. Evaluation of students participating in field experiences and student teaching/clinical experiences shall be completed using formal instruments. All instruments shall be based on the generic and specific competencies of Bloomsburg University Teacher Education programs.

2. Each cooperating teacher shall be trained thoroughly in the evaluation process.

3. Letter grades shall be used in all field experiences and student teaching/clinical experiences.

4. Based upon formal evaluation instruments, the supervisor and cooperating teacher shall discuss mutually a letter grade for Student Teaching/Clinical Experiences. The faculty supervisor, however, shall have the final responsibility for the assigning of letter grades.

#### *VII. The Function, Role, And Form Of The Student Teaching Related Experiences.*

Each teacher education program shall develop course(s) or equivalent experiences in conjunction with student teaching which will (a) complement the student teaching experience; (b) reinforce previously gained competencies; (c) bridge the gap between theory and practice; and (d) facilitate the acquisition of new competencies.

#### *VIII. The Training Of Cooperating Teachers.*

The teacher education faculty shall develop training program(s) for cooperating teachers. Such programs shall include sufficient content to meet the PDE Program Approval Standards of developing observation and evaluation skills as well as sharing and exchanging ideas. Appropriate procedures shall be utilized to insure local educational agency cooperation and collaboration. Incentives should be developed to encourage cooperating teachers to participate. Members of the teacher education faculty should instruct in such training programs and be granted appropriate compensation. A process for continual renewal and updating cooperating teachers in observation and evaluation methods shall be developed.

## PRP 3200

### Program Approval

Issued by: Joanne S. Growney  
Acting Provost and VPAA  
Effective Date: June, 1984

Notes: Approved by Council of Trustees, 6/13/84.

The Council of Trustees shall review and approve or disapprove Program Development Proposals of the following types:

- (1) New Mission\* - Missions available to institutions within the State System of Higher Education include Teacher Education, Health Sciences, Business, Technology, and Liberal Studies.
- (2) New Degree:\* - Both permission to plan and final local approval for implementation will be granted by the Council.
- (3) New Area of Teacher Certification:\*

Both permission to plan and final local approval for implementation will be granted by the Council.

In addition, the Council of Trustees shall approve and disapprove proposals to delete mission, degree programs or areas of teacher certification.

The Council of Trustees also shall approve or disapprove new "Schools" (i.e., Colleges) within the organizational structure of Academic Affairs.

\*Policy 2220 (Program, Budget, and Facilities Planning in Academic Affairs) and Policy 3232 (Procedures for Submitting Category II-Program Development Proposals) shall be modified, as needed, to provide for the Council's role in these approvals.

## PRP 3222

### Undergraduate Degree Programs

Issued by: JoAnne S. Growney, Acting Provost and VPAA  
Effective Date: June, 1984

1. The only undergraduate degree programs that may be offered by Bloomsburg University are those that have been approved by the external and internal program approval process (see 3230). The tabular listing below is the official listing of approved degree programs. Only those programs listed as active may have students admitted to them. Those listed as inactive are of three types: (a) those which have never been activated; (b) those which have been deactivated but have students still working in them; (c) those which have been deactivated and have no students working the them. In order to be reactivated, a program must go through the internal program approval process.

2. Unless indicated otherwise in the footnotes, the official external approval for degree programs listed is based on the omnibus list of programs attached to the letter from John C. Pittenger, Secretary of Education, to James H. McCormick, President of Bloomsburg State College, dated September 1, 1976.

3. The program nomenclature indicated below is the official Bloomsburg University nomenclature which must be used on the student's academic record and on all brochures, catalogues, and other materials. When abbreviations are developed, the official abbreviation of a nomenclature shall

be indicated by underlining the letter not part of the abbreviation.

4. The nomenclature indicated in column five, "Options Within Major", have been approved by the internal approval process. They are primarily for advisement purposes but also appear on the student's academic record as information items.

5. The footnotes give additional information in complex situations.

6. The six-digit code in column seven is the "Classification of Instructional Programs" code assigned to degree programs through the external approval process.

7. The Provost and Vice President for Academic Affairs shall determine which college shall offer a degree program and which department(s) shall be re-sponsible for offering the major. A special authorization shall be re-quired whenever more than one college offers the same degree program.

8. The abbreviations used below are as follows:

#### Column two:

AS = Associate in Science  
AAS = Associate in Applied Science  
BA = Bachelor of Arts  
BSBA = Bachelor of Science in Business Administration  
BS = Bachelor of Science in Nursing  
BSOA = Bachelor of Science in Office Administration  
BSEd = Bachelor of Science in Education

Column three: A=Active, I=Inactive (Ia = Never Activated; Ib = Deactivated but with students still working in them; Ic = Fully Deactivated.)

Column seven: CIP - Classification of Instructional Programs

## PRP 3224

### Guidelines for Course Numbering System

Issued By: Betty D. Allamong,  
Provost and Vice President for Academic Affairs  
Effective Date: May 1990

Notes: Endorsed by BUCC, February 21, 1990; endorsed by the University Forum, April 25, 1990

The number of a course should reflect the rigor and level of expectation of that course. The following system of course numbering shall be used: 011-099 Non-credit developmental courses not offered in regular curriculum but which count toward definition of a student's full load.

**100-299** Lower division courses: Service, introductory, or basic courses in the discipline designed primarily for freshmen and sophomores.

**300-399** Upper division courses: Advanced courses in the discipline which may require successful completion of prerequisite courses. Courses open to students who have earned a minimum of 60 credit hours or to others with permission of the department chairperson and instructor.

**400-499** Upper division courses: Advanced courses in the discipline which may require successful completion of prerequisite courses. Courses open to students who have earned a minimum of 75 credit hours or to others with permission of the department chairperson and instructor.

**500-599** Graduate division courses: Graduate courses which are part of a graduate degree program or special graduate

courses designed for specific non-degree offerings. Open to graduate students and qualified seniors with permission of the department chairperson and the Assistant Vice President for Graduate Studies and Research.

Responsibility for implementation is the purview of the deans and should be implemented by the fall of 1983.

Cooperative courses shall be numbered with the department number followed by the digits 279 for the first experience and 479 for the second experience.

## PRP 3230

### Course and Program Development

Issued by: Wilson G. Bradshaw, Provost and VPAA

Effective Date: Jan 1, 1997

Notes: Approved by BUCC, 4.24.85. Revised by BUCC, 2/20/87. Revision, page 2, approved by BUCC, 12/7/88. This policy voids PRP 3231, 3232, and 3234. Revised by BUCC, 11/20/96.

#### Policy:

1. The development of academic programs is a crucial aspect of the long-range well-being of the University. New programs must be mounted as student and societal needs become known. Existing programs facing declining enrollments become subject to review so that adjustment steps may be taken. In some cases a program may have to face the possibility of discontinuation. Courses within programs go through a similar evolutionary cycle.

2. It is the policy of Bloomsburg University that program development be objective (based on demonstrable evidence), orderly (done in conformance to a prescribed procedure), timely (neither pre-mature nor overly delayed), efficient (cost-effective in terms of the investment of both time and energy), and in conformance with the overall mission of the University. Program development must tap the creative talents of all faculty and administrators. Procedures must not stifle those creative talents.

3. Inasmuch as program development ranges from the development of an entirely new mission for the University, down through the development of new degree programs, options, concentrations and minors to matters involving individual courses and even the numbering of a course, it is imperative that the complexity of procedures be correlated with the complexity of the program developments. Differing actions will involve different actors and different approval levels. Inasmuch, however, as program changes in one area will likely have an impact on other areas, it is essential that all changes be reviewed in such a way that inter-organizational impact is carefully considered.

#### Procedures:

Introduction: All proposals for the addition, deactivation or modification of an academic program, or element thereof, must use the prescribed "Omnibus Course and Program Development Cover Sheet" (Document P). This form clearly indicates what additional documents must be prepared, and where they are to be routed for approvals. For information not included below and for clarification of the following instructions, please contact the Office of the Provost and

Vice President for Academic Affairs or the BUCC Chairperson. Forms and formats are available from the Office of the Provost and Vice President for Academic Affairs. The distribution of all documents is outlined in Instruction 8 below.

2. Instructions for completing Document Q - Summary of the Proposal

Q-1: Identify department and contact person. Write a concise and common-sense description of what is being proposed.

Q-2: Set forth the rationale for the proposed action.

Q-3: Include both departmental and extra-departmental cost estimates. If additional resource requirements exceed \$1,000 for the first year and \$500 per year thereafter you must complete Document T even if not required by the cover sheet.

Q-4: This inter-unit impact statement is the key to streamlined procedures. Units should contact Academic Computing and Library Resources when necessary. The originating department is accountable for the careful completion of the statement, as indicated by the Chairperson's signature. The statement need not include the widely diffused impact of changes in general education offerings or the impact of new programs on the enrollments of existing programs.

If "understandings" cannot be worked out, the originating department should seek the mediating assistance of the Dean(s). If a total impasse occurs the originating department may bring Q-4 to BUCC for arbitration.

3. Instructions for completing Document R - Course Syllabus:

a. See PRP Issuance 3233 for format.

b. The syllabus should be the working one for classroom use, not a special edition for peers and superiors.

4. Instructions for completing Document S - Full Description and Rationale:

a. Include, but not be limited to, the following:

S-1: A full description of what is proposed including required courses, total hours, special features. Do not include information covered in other documents. S-2: A full rationale for what is proposed. How will the proposed action benefit the University? Its students? S-3: Interunit impact. Explain how the proposed change affects the rest of the University. Indicate how negative impact has been resolved with negatively affected units. S-4: Indicate how the quality of the proposed change will be guaranteed, both initially and in the long run. Quality analysis should include references to the training and expertise of faculty and the adequacy of support personnel, equipment, facilities, and so forth.

b. For a course to be included in the general education listing the major emphasis should be on how well the course fulfills the objectives of general education.

5. Instructional for completing Document T - Fiscal Impact:

T-1: Faculty Requirements. Indicate the contact hours (load factor) that will be needed to offer the

proposed program. What would be the current CBA cost of those contact hours? Explain how the cost will be met. (Will new faculty be needed? Will current faculty be used? If, so how will the utilization of current faculty be altered?) T-2: Support Personnel: Analyze in a manner similar to T-1.

T-3: Equipment Requirements: Indicate what equipment will be used in implementing the proposed program. If existing equipment is to be used indicate how its utilization will be altered by the new program. Indicate what new equipment will be needed and how much it will cost.

T-4: Facility Requirements: If existing facilities are to be used, indicate how the current utilization of those same facilities will be impacted by the new program. Indicate what new facilities will be needed and their cost.

T-5: Other Resources Requirements: Give details and costs.

6. Instructions for completing Document U - Needs Analysis.

U-1: Describe the enrollment projection over the next five years and how you arrived at the projection.

U-2: Source of Students - Indicate if the students in this program will come from within the University or if the total student body must be increased to accommodate this program.

U-3: Describe the career and employment opportunities in the field with valid documentation.

U-4: For items 21-24 list the institutions in the region offering the same or similar programs. Contact the VPAA to find out how "communications with other appropriate institutions" is to be conducted.

7. Instructions for completing Document 10: Program Completion Plan - With proper course selection, it should be possible for a student to complete a degree in eight semesters. Give an eight semester plan of courses that would permit a student to complete a degree in the program. Choices among courses are permitted. Allow for general education courses (suggested or required general education courses may be given). Check that prerequisite requirements are met. Although required courses may not be offered every year, it should be possible for a student to obtain all necessary courses in eight semesters. The program completion plan should document that this is possible. It is understood that not every student in a particular program will follow the course selections in the program completion plan exactly. Nor does the existence of a program completion plan guarantee that all students in a program will complete their degrees in eight semesters.

8. Other documentation: Attach, if germane.

9. Distribution of copies: The "original" should be routed sequentially as indicated on the Cover Sheet. The initiating department should distribute information copies as indicated in the right hand column of Box 3. For swing and graduate courses the original goes to the College Curriculum Committee with a copy to the Graduate Council. Contact your Dean's secretary to find out how many copies to send to that College's Curriculum Committee.

## PRP 3233

### Required Format for Course Syllabi for BUCC Approval

Issued by: Dr. Carol J. Matteson, Interim Provost and V.P. for Academic Affairs

Effective Date: August 28, 1995

Notes: Amended by the Bloomsburg University Curriculum Committee November 14, 1990. Presented as an information item to the University Forum January 30, 1991. Amended by BUCC 4/12/95. Presented to the University Forum 4/19/95

Include in your syllabus items one through 14 using as much space as needed.

1. Date Prepared:
2. Prepared by:
3. Department:
4. Course Numbers: (Refer to PRP #3224 Guidelines for Course Numbering System)
5. Course Title:
6. Credit Hours:
7. Prerequisites:
8. Catalog Description: (Paragraph should reflect general aims and nature of the course)
9. Goals And/Or Objectives: (May be general goals, specific objectives, behavioral objectives, or other indications of the aims of the course)
10. Content Outline:
11. Methods: (Suggested approximate class size)
12. Evaluation Procedures: (Refer to PRP #3264 Student Course Requirements and Progress Information)
13. Supporting Materials: (References for student use. Style of entry should follow a manual such as Turabian, MLA, APA, or the accepted guide in a specific discipline)
14. Text: (Include author, title, publisher, date of publication, and an indication of whether or not the text is required)

Note: Original syllabus shall be on file in the department and in the Office of the Provost and Vice President for Academic Affairs.

## PRP 3264

### Student Course Requirements and Progress Information

Issued By: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by Representative Assembly, 2/4/81. Amended by Vice President's Advisory Council, 3/1/84. Amended by CCAA, 3/7/84. Accepted by RAX, 3/21/84. Approved by RA, 4/4/84. Amended at BUCC 4/26/95. Presented to the University Forum September 20, 1995.

I. Within the first week of classes each semester, teaching faculty must distribute in writing, at least the following information:

- a. Procedures for determining each letter grade.

- b. Any relationship of class attendance to the course.
- c. Any other course requirements.
- d. Weighted average of requirements for grade computation.
- e. Procedures for making up tests or other work missed through excused absence. (See policy #3506-Class Attendance.)

2. A faculty may post student grades providing that a student has given written permission. The grades must not identify the student. Student confidentiality must be assured when posting grades. Using Social Security Numbers or parts of Social Security Numbers is illegal. If grades are posted, each student should be given unique identifier which is not consistent to student names listed in alphabetical order.

3. At any time during the semester, teaching faculty shall be prepared to inform students of their academic progress, should the student request this. At the end of a semester or summer term, the final grade of each course is recorded on the student's permanent record; a copy of the semester grades is sent to the student at his/her home address or another designated by the student.

## PRP 3333

### Undergraduate (Degree and Non-Degree) Admissions Policy

Issued by: Dr. Carol J. Matteson, Interim Provost And V.P. for Academic Affairs

Effective Date: August 28, 1995

Notes: Approved by BUCC, 3/19/86. Approved by Council of Trustees, 6/11/86. Amended by BUCC 4/12/95. Presented to University Forum 4/19/95.

#### Criteria:

Admission to Bloomsburg University is determined by the applicant's academic and personal qualifications. Decisions are reached without regard to race, age, color, creed, national origin, sex or physical handicap.

Applicants other than those eligible for early admission must be graduates of or seniors in accredited secondary schools or must have secondary school equivalency as determined by the Credentials Evaluation Division of the Pennsylvania Department of Education.

Acceptance is determined by the Director of Admissions upon evaluation of secondary school preparation, achievement, scores on either the Scholastic Assessment Test (SAT) or American College Test (ACT), personal characteristics, and institutional capacity.

Acceptances are tentative if based on evaluation of transcripts which show work in progress; final action is taken after complete transcripts have been received and evaluated.

#### Procedures:

To be a candidate for admission, one must complete and submit an official application with the appropriate non-refundable application fee to the Office of Admissions. The applicant is responsible for requesting the proper official of his/her secondary school to submit a transcript and personal evaluation to the Director of Admissions.

An applicant must provide scores of the SAT or ACT. It is

the responsibility of the applicant to arrange for the test and to request the forwarding of the scores directly from the Testing Service. A photostatic copy of the test report on an official high school transcript is also acceptable. No other standardized test will serve as a substitute for the SAT or ACT.

#### Special Categories:

**Early Admissions** - Outstanding high school students may apply for consideration for admission prior to completion of high school. In addition to strong achievement and high aptitude, applicants for early admission must have the unqualified endorsement of the high school to receive consideration.

**ACT 101/Educational Opportunity Program (EOP)** - Any individual with a high school diploma or certificate of equivalency is eligible to apply for admission to the program.

Non-traditional criteria are applied in estimating potential of an applicant when it appears that the environmental background may have adversely affected grades and/or standardized test scores.

The Director of Admissions may require an applicant for the ACT 101/EOP to file supplementary information as needed for proper consideration.

Students admitted through the ACT 101/EOP are expected to participate in a summer enrichment experience prior to the first semester of their attendance, where special assistance in tutoring and counseling is given to address specific academic, financial and/or social problems. This requirement can only be altered by the Director of ACT 101/EOP.

**Transfer Students** - An applicant who was previously enrolled, or at the time of application is enrolled, in another college or university is a transfer student. The criteria and procedures above apply to transfer applicants.

SAT or ACT results are not required from applicants who have successfully completed 30 or more semester hours of college credit.

Transfer applicants must supply an official transcript from each college attended to the Director of Admissions, regardless of whether credit was earned at the other institution(s).

For a transfer student to be considered for admission, he/she must be certified as in good standing academically and otherwise in the college last attended and must have an overall quality point average of 2.0 or better on a 4.0 system for all courses in which passing and/or failing grades were recorded.

**Readmission of Former Students** - Students, who, having been formally admitted to degree study and attended Bloomsburg University, fail to enroll or withdraw for any academic semester, regardless of the reason, must apply for readmission.

Readmitted students are responsible for the graduation requirements and academic policies which exist at the time of reentrance.

The Director of Admissions may require an applicant for readmission to file a letter containing such supplementary information as needed for proper consideration.

Students under academic dismissal are ineligible for readmission for one calendar year. They should present evidence of successful achievement at another college or university as part of any application for readmission.

Readmitted students who were formerly dismissed for academic deficiency have two final grading periods in which to regain minimum academic progress or good academic standing. These students are not eligible for academic probation and if dismissed the second time may not attend the University for additional degree or non-degree credit study.

**Non-Degree Admission** - Admission to the non-degree credit program is open to all high school graduates or those holding GED credentials, standardized test scores are not required.

Application forms may be obtained from the Office of Admissions or the Office of Adult Advisement. Non-degree categories with their credential(s) requirement are as follows:

**Adults who desire to enroll** as part-time students must submit to the Office of Adult Advisement: completed application for non-degree admission. Must submit evidence of high school graduation or GED completion prior to enrolling for a second semester or session.

**A student approaching the final year of high school** who desires to combine university work with the last year of high school must submit to the Office of Admissions: high school transcript, junior year SAT or Act scores, a letter of recommendation from the high school counselor, and letters of recommendation from two high school instructors in the academic area of intended pursuit, and completed application for non-degree admission.

**Students with an earned baccalaureate degree** who wish to complete the requirements for Level I or Level II teacher certification. Credential requirement: a transcript from the institution granting the baccalaureate degree and a completed application for non-degree admission

**Senior citizens** who are retired, over 60 years of age, legal citizens of the U.S. and residing in the Commonwealth of Pennsylvania are eligible to apply for waiver of tuition fees through the School of Extended Programs. Students in this category may be admitted to classes on a seat available basis only. Credential requirement: proof of age, retirement, United States Residency, and a completed application for non-degree admission. Must submit evidence of high school graduation or GED completion prior to enrolling for a second semester or session.

**Students seeking enrollment in a certificate program.** Credential requirement: official high school transcript or GED, a completed application for non-degree admission, and the signature of the Coordinator of Adult Advisement.

## PRP 3343

### Evaluation of Undergraduate Transfer Credits

Issued by: Dr. Wilson Bradshaw, Provost and VPAA  
Effective Date: 3/3/99

Notes: Approved by the Faculty Senate, May 12, 1971.  
Amended by BUCC 4/12/95. Presented to the University Forum 4/19/95. Amended by BUCC 2/2/00. Presented to the University Forum 2/9/00.

#### Credit by Transfer:

##### *Transfer students:*

Evaluation of credit earned at other institutions for transfer students is recommended by the Admissions office with final approval by the department chairperson. Credits for acceptable courses transfer. Grades, quality points, and grade point averages do not transfer.

College level courses completed with a grade of C (2.0/4.0) or above from a two-year or four-year institution, accredited by one of the regional accrediting agencies, are usually transferred for a degree student. With the exception of courses covered by the State System of Higher Education Academic Passport Policy, courses taken with a grade of less than C (2.0/4.0) will not transfer to Bloomsburg University.

Transfer credit will be deleted if the student subsequently registers for courses which substantially duplicate the content of courses accepted for transfer.

When the substitution of transfer credit for a required course is in question because the course was taken in an unaccredited institution or because the description of standards of the course are unclear, a student is entitled to an opportunity to validate the course by examination.

Correspondence courses are subject to acceptance to a total that does not exceed fifteen semester hours if taken from a college or university accredited by one of the regional accrediting agencies and acceptable by that institution toward graduation in a baccalaureate degree curriculum.

Courses taken in another institutions on a pass-fail basis are acceptable for transfer as free electives, if they conform to the conditions for such grades at Bloomsburg University. (See Policy 3454)

##### *Enrolled Students:*

Degree students of Bloomsburg University may take courses in other accredited institutions and submit the credit for transfer, provided the courses satisfy the criteria stated above. (See Policy 3604 concerning Graduation Requirements).

##### *Credit by Advanced Placement Examinations:*

The University will award credit for Advanced Placement Exams (AP exams) upon receipt of verification of a score of 3,4, or 5 by the Office of the Registrar.

##### *Credit by CLEP Examinations:*

The University will award credit for CLEP Examinations upon receipt of verification of a score

at or above the 50th percentile by the Office of the Registrar. CLEP General Examinations must be taken before matriculating to Bloomsburg University. CLEP Subject examinations may be taken anytime prior to graduation. Acceptance of credit for certain CLEP Examinations is subject to departmental approval.

#### ***Credit for Military Experience:***

Bloomsburg University may award college credit for educational experiences of students earned while serving in the armed forces of the United States. The registrar makes a recommendation to the chairperson of the student's departmental major based upon the American Council on Education's Guide to the Evaluation of Educational Experiences in the Armed Forces. Recommendations are made provided the credit applies to the student's degree program. The final decision for granting credit resides with the departmental chairperson.

The University will transfer two credits in Physical Fitness 05-100 for completing basic training in the armed forces of the United States.

#### **PRP 3360**

### **Placement Testing for Developmental Courses**

Issued by: Wilson G. Bradshaw, Provost and VPAA

Effective Date: Fall, 1998

Notes: Approved by BUCC, 2/1/88. Reviewed by President's Cabinet, 3/18/88. Presented to University Forum for information. Revised by BUCC March 4, 1998. Presented to University Forum 3/18/98 for information purposes only.

This policy applies to testing that is not a part of course requirements.

Students will be selected for and administered placement tests prior to matriculation based upon their predicted freshman year grade point average (G.P.A.). A predicted freshman year G.P.A. is calculated by the Office of Admissions for each new freshman at the time of application using the high school class rank, SAT Verbal and SAT Math scores. New freshmen with a predicted G.P.A. less than 2.25 will be given placement testing. The specific area(s) of placement testing (mathematics, reading, writing) will be determined by the pattern of SAT scores and high school achievement. Students selectively low in one of the admission testing areas (e.g., below SAT Math of 470, SAT Verbal of 480) will have placement testing in areas which are selectively weak.

Depending on the results of the review of the academic record and the placement test scores, an individualized program including a developmental course(s) may be prescribed. The guidelines for developmental course placement are established by the Department of Developmental Instruction, the Department of English and the Department of Mathematics and Computer Science. The Director of Academic Advisement will provide each student who has been administered a placement test(s) with a report indicating the prescribed program. A copy of this information will also

be sent to the student's academic department. If a student is identified for and is placed in a developmental course(s) during the first semester (Fall or Spring) of attendance, the course(s) is considered a prerequisite before additional courses for credit toward the degree can be taken in corresponding areas (Writing II for English Composition I and Introductory or Intermediate Algebra for all courses that meet the quantitative-analytical reasoning general education requirements). This requirement also applies to summer freshmen during their first academic year semester of attendance. Developmental courses will be provided for all identified ACT 101/EOP freshmen and for other identified freshmen based upon the available seats in the Department of Developmental Instruction courses.

#### **PRP 3361**

### **Academic Renewal Policy**

Issued by: Wilson G. Bradshaw, Provost and VPAA

Effective Date: Fall 1998

Notes: Approved at BUCC 11/19/97. Presented to University Forum 2/11/98 for information purposes only.

Academic renewal is a means to allow certain students who have been dismissed from the University to return and not be unduly encumbered by their prior academic record. Academic renewal allows students to have their courses prior to dismissal treated as transfer credits.

An undergraduate student who wishes to apply for academic renewal must meet the following criteria:

1. He or she must have been academically dismissed from the University.
2. He or she must not have been enrolled at the University as a degree student for five or more calendar years.
3. He or she must have been readmitted to the University as a degree student.

An application for academic renewal may be made at the time of readmission and must be completed before the mid-term day of the first semester of attendance after readmission as a degree student. This procedure is not automatic; it must be initiated by the student. It is the advisor's or chair's responsibility to ensure applicants' eligibility for academic renewal as well as its advisability. Academic renewal is done in consultation with the student's academic department and requires the Dean of the College's approval.

Students who have been granted academic renewal have all courses taken prior to academic dismissal treated as follows. Those courses in which a grade of C (2.0) or better were earned and are approved by the academic department are treated as transfer credits for degree completion and not used in computing students' quality point average. Those courses which are not approved or in which a grade of C- or less was earned are not used for degree completion. Students who have been granted academic renewal will have their quality point average computed on the basis of all courses taken after dismissal.

Students who have been granted academic renewal are permitted four course repeats after readmission.

Students who have been granted academic renewal are subject to the academic retention standards that apply to first

semester transfer students. If academically dismissed a second time, a renewal student may not attend the university for additional degree or non-degree credit study.

The transcripts of students who have been granted academic renewal will have all courses and grades listed. Courses set aside under the academic renewal will be identified.

A student may be granted academic renewal only once. Once granted, its conditions cannot be altered.

## **PRP 3407**

### **Student Responsibility**

Issued by: Dr. Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Accepted by the Representative Assembly, 5/5/82.  
Amended at BUCC

4/26/95. Presented to University Forum September 20, 1995.

It is the responsibility of the student to know and observe the academic policies and regulations of the University; to confine registration to courses for which the prerequisites have been satisfied and to meet the requirements for graduation.

## **PRP 3415**

### **Registration**

Issued by: Larry W. Jones, Vice Pres. for Academic Affairs  
Effective Date: Fall 1983

Notes: Approved by the Coordination Committee on Academic Affairs, 12/8/82. Approved by RAX 1/20/83.

Approved by Representative Assembly 2/2/83.

A student completes registration before attending classes. Registration is the student's official notification to the university of his/her enrollment for the semester. Normally, it is to be completed before the first day of classes. Students may register late until the close of business on the sixth day of classes after a semester's registration or the first Wednesday following a summer session registration. There is a special fee for late registration unless the student presents a legitimate medical excuse. Students registering for an off-campus course may do so at the first meeting of that class.

## **PRP 3420**

### **Choice of Curriculum/Declaration of Major**

Issued By: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by CCAA, March 31, 1982. Accepted by Representative Assembly, 5/5/82. Amended at BUCC 4/26/95. Presented to the University Forum September 20,

1995

The undergraduate curricula are administered by three colleges; the College of Arts and Sciences, the College of Professional Studies, and the College of Business. The requirements for the curricula can be obtained from the dean of the particular college.

When students are admitted they are admitted to a specific major or area of study. They are admitted to the college which houses that major.

When a student makes a tentative choice of a major he/she selects pre-liminary or prerequisite courses with the advice of the major department. In curricula where admission is selective or restrictive at the junior year entry-level, as is the case in several programs, the university is not obligated to admit the student.

## **PRP 3422**

### **Double Major Across Colleges**

Issued by: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by the Representative Assembly April 29, 1981. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

Students electing to major in two departments must have a major advisor in each department, meet all of the major requirements of each department and all of the general education requirements. Double majors in some departments may require more than the minimum 128 credits for graduation.

## **PRP 3424**

### **Change of Area of Study**

Issued by: Dr. Carol J. Matteson Interim Provost and VPAA  
Effective Date: August 28, 1995

Notes: Approved by the Faculty Senate, November 5, 1971.  
Amended by BUCC 4/12/95. Presented to University Forum 4/19/95.

## **Procedures**

A student who wishes to change from one area of study to another must file a request in the Academic Advisement Office.

Permission to enter the new curriculum may require approval of the dean of the college (or his/her designate) in which it is offered. In this case, approval will depend on available space and may depend on recommendations from advisors.

## **PRP 3434**

### **Change of Undergraduate Schedule**

Issued By: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by Faculty Senate, May 6, 1971. Amended by the Representative Assembly, December 10, 1979. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

A student may change his/her semester/summer session schedule prior to the close of the fifth/third day of the semester/summer session. The consent of the advisor is not prerequisite to a change of an undergraduate schedule. Changes are subject to available space in classes to which the student proposes to transfer.

Schedule changes for all students in the Department of Developmental Instruction, with fewer than 32 earned credits require the approval of Department of Developmental Instruction. Schedule changes for students on academic probation, reinstatement, and minimal academic progress require the approval of the academic advisor.

## PRP 3439

### Student Scheduling Policy

Issued by: Patrick J. Schloss, Ph.D., Provost and Vice President for Academic Affairs

Effective Date: Spring Semester 2002

Notes: Approved by the Coordinating Committee on Academic Affairs, 12/8/82. Approved by RAX, 1/20/83. Approved by Representative Assembly, 2/2/83. Revised by BUCC 3/4/98. Presented to University Forum for information purposes only 3/18/98. Revised by BUCC 1/30/2002

&nbsp;

The normal course load of a student in any semester is 16 semester hours. A student in good standing is limited to 18 semester hours, unless he or she receives permission for an overload by his or her academic adviser. A quality point average (GPA) of 3.0 or higher is required of the student before permission can be granted for an overload. If the GPA is less than 3.0, then approval of the department chairperson is required.

A student who is making minimum progress toward academic good standing or who is on academic probation may schedule no more than 16 semester hours. A student who has been reinstated upon appeal of academic dismissal is limited to scheduling 13 semester hours.

A scheduled class always constitutes an obligation. All scheduling and registration procedures shall not conflict with this obligation.

It is highly desirable for students to complete English Composition I and II (or their equivalent) by the end of their sophomore year. Advisors and students should make every effort to accomplish this goal.

Seniors will be scheduled first, followed by juniors, sophomores, and freshmen. During the initial scheduling period (period with assigned access times) students are limited to a maximum of five (5) courses of three (3) or more credits. Additional course(s) may be scheduled from the conclusion of the initial scheduling period through the drop/add period. This limitation does not apply to students who are eligible to graduate at the conclusion of said semester.

Incoming freshmen will be block-scheduled for their first two semesters of attendance. The second semester block will include at least 12 credits. An opportu-

nity for academic advisement and schedule changes will be available during orientation and also during the first semester of enrollment.

Department Chairpersons will provide the Office of the Registrar with a list of courses in their respective major programs that they feel such freshmen should have during the first two (2) semesters in college.

Such block-scheduling of incoming freshmen for the first semester will be done by the Office of the Registrar prior to the respective orientation sessions. Second semester block-scheduling will be done just prior to the scheduling period for the next semester. Both block-schedules will be prepared by the Office of the Registrar. Changes to freshmen schedules will only be authorized for extenuating circumstances (see below).

Incoming transfer students are permitted to schedule for their first semester of attendance at any time during the scheduling period.

Students shall not be required to be at co-curricular activities Monday through Friday until after 3:30 p.m.

Students off-campus (e.g. student teaching, internships, etc) will prepare schedules that will be processed at the appointed time with those of their peers. Such students will need the supervisor's signature and must mail their schedules to the Office of the Registrar.

Extenuating Circumstances Justifying a Freshman Schedule Change:

When a student repeats a course in which a grade of C-, D+, D or E has been recorded the previous term.

When a student has withdrawn from college and re-enters the following term

When a student has decided after the registration period to change the major or program of study.

When a student has received an incomplete schedule.

When changes are made in the master schedule (e.g. courses/sections deleted or added).

When a student decides or is chosen to participate in legitimate co-curricular activities after the registration period but before the end of the schedule change period. (Social obligations do not constitute a valid reason for a schedule change.)

When a student receives transfer of credit evaluation after the previous registration period.

When other circumstances are deemed valid by the appropriate chairperson.

## PRP 3442

### Definition of Full-Time Student

Issued by: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by CCAA, March 31, 1982. Accepted by Representative Assembly, 5/5/82. Amended by BUCC 4/26/95. Presented at the University Forum September 20, 1995.

An undergraduate/graduate who is enrolled for twelve/nine or more semester credits is classified as a full-time student throughout the semester. One who enrolled for fewer than twelve/nine semester credits is a part-time

student. Where the word "student" appears without clarification either by word or context, "full-time student" is implied.

## PRP 3446

# Undergraduate Satisfactory Progress

Issued By: Betty D. Allamong, Provost and Vice President  
for Academic Affairs

Effective Date: November 14, 1990

Notes: Amended by the Bloomsburg University  
Curriculum Committee November 14, 1990.

## 1. Criteria For Evaluating Undergraduate Satisfactory Progress

Undergraduate satisfactory progress is evaluated on the basis of two criteria:

- a. a student's ability to earn a minimum number of credit hours;
- b. a student's ability to maintain a minimum quality point average at the conclusion of each grading period.

### Earned Credit Hours

Full-time continuously enrolled undergraduate degree students: to maintain satisfactory progress toward the completion of degree, the student must earn a minimum of 24 credit hours in any given 12 month period (including credit hours earned in developmental studies courses).

Part-time undergraduate degree students: to maintain satisfactory progress within any 12 month period, the student must earn credit hours as prescribed below:

|                     |                                                         |
|---------------------|---------------------------------------------------------|
| Hours Attempted     |                                                         |
| Up to eight credits | One-half of all credit hours attempted must be earned   |
| Nine and above      | Two-thirds of all credit hours attempted must be earned |

Note: Hours earned for a repeated undergraduate course are not counted twice.

### Quality Point Average

All undergraduate degree students: to maintain satisfactory progress, the student must meet the following minimal requirements:

Total number of semester hours earned including average required grades of "P" and transfer for minimal progress credits

|                           |             |
|---------------------------|-------------|
| 1 - 16 semester hours     | 1.25 - 1.99 |
| 17 - 32 semester hours    | 1.65 - 1.99 |
| 33 - 48 semester hours    | 1.85 - 1.99 |
| 49 - 64 semester hours    | 1.95 - 1.99 |
| 65 or more semester hours | 2.00        |

While making minimal progress toward academic good standing, a student may schedule no more than 16 semester hours.

A student whose record at any final grading period shows a cumulative quality point average of 2.00 or better is considered in academic good standing.

## 2. Academic Probation

An undergraduate student in any one of the following categories is permitted to attend on academic probation for one additional grading period (semester or summer) and is limited to a maximum of 16 semester hours:

- a. an entering freshman whose quality point average after his/her first grading period is at 1.00 but less than 1.25;
- b. a transfer student whose quality point average after his/her first grading period is less than but within 0.25 of the cumulative quality point average required for minimal progress;
- c. a student who has been meeting the requirement for at least two consecutive grading periods immediately prior to a grading period in which his/her cumulative quality point average drops below but within 0.10 of the cumulative quality point average required for minimal progress;
- d. a full-time freshman or transfer student who was making minimal progress toward good standing at the end of the first grading period following entrance but whose quality point average at the end of the second grading period is below but within 0.10 of that required for minimal progress toward good standing;
- e. a full-time student who failed to earn 24 semester hours within one 12-month period;
- f. a part-time student who failed to earn the minimum number of semester hours as prescribed above within the given semester.

To be removed from academic probation, a student must earn a minimum of eight semester hours and a minimum quality average as described in the table above. The record of a student in any of these categories is marked "academic probation."

## 3. Duration Of Degree Work

Full-time undergraduate students are expected to complete their programs of study within five calendar years of continual enrollment.

## 4. Academic Dismissal

An undergraduate student who is not qualified to attend for a semester on academic probation or who, upon reaching the end of the one probationary semester, does not meet the minimal requirements of earned credit hours and/or quality point average, is excluded from registration, and his/her academic record is marked "academic dismissal." A student under academic dismissal is ineligible to attend courses offered for a period of at least one calendar year. Readmission regulations are stated in the Undergraduate Catalog.

## 5. Procedures

Students failing to meet the minimal requirements of earned credit hours and/or quality point average will be notified by the Office of the Registrar.

## PRP 3449

### Graduate Courses in Senior Year

Issued By: Larry W. Jones, Vice President for Academic Affairs

Effective Date: May, 1982

NOTES: Approved by CCAA, April 14, 1982. Accepted by the Representative Assembly 5/5/82.

Seniors needing fewer than 18 semester hours of course work to satisfy requirements for the baccalaureate degree may, with approval of their department chairperson, apply to the Dean of Graduate Studies for permission to supplement their undergraduate courses with graduate courses. Graduate credit for graduate courses completed will be awarded upon verification of completion of the undergraduate degree.

## PRP 3450

### Credit by Examination

Issued by: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by the Vice President for Academic Affairs, 8/28/75. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

A student may petition for the privilege of establishing credit in a course or courses listed in the undergraduate catalogue through a comprehensive examination instead of through registration and class attendance or through independent study of the course content.

A student may not petition for an examination in a course audited, nor in a course from a failing grade has been recorded.

A student must present evidence of equivalent experience if the course involves laboratory or studio work.

The student's petition must be approved in sequence by the department chairperson and the dean of the college.

An examination committee must be appointed by the department chairperson and approved by the dean of the college. Unless the course is an advanced course which is taught by only one member of the faculty, the examination committee must include at least two faculty members.

The examination must cover the course syllabus in a comprehensive manner. Suitable standardized examinations may be used. The examination must be written or, if oral, subject to transcription. Where skill, as in keyboarding or use of applications software is a course requirement, the written and oral aspects must be supplemented by demonstration of skill. A copy of the completed approval form must be placed in the student's advisement file and the original forwarded to the Office of the Registrar.

A fee is charged for courses challenged by institutional examination taken for credit, regardless of the number of credits awarded for that course. Upon receipt of approval, this fee is payable at the College of Business Office. Evidence of payment must be presented to the department before the examination can be administered.

If the student passes the examination, the grade of "P" is assigned for the course. If he/she fails, no record is made. This course does not count in the student's normal quota of pass-fail courses. Suitable adaptations of the above procedures may be used to validate transfer courses taken in non-

accredited colleges. No fee is charged for examination to validate such credit. Examinations may be based upon the syllabi of the courses taken in the previous institution or, in case the student wishes to establish equivalency with courses in this university, upon the syllabi of courses offered in this institution.

## PRP 3451

### Credit by Examination for RN's

Issued By: Wilson G. Bradshaw Vice President for Academic Affairs

Effective Date: July 1, 1997

Notes: Approved by the Coordinating Committee on Academic Affairs, 1/26/83. Approved by RAX, 2/16/83. Accepted by the Representative Assembly, 3/2/83. Revised by BUCC October 1995.

The minimum credit requirement for a baccalaureate degree at Bloomsburg University is 128 semester hours. These credits may be attained through successful completion of courses offered at Bloomsburg University, the transfer of credit, and/or the successful completion of advanced placement examinations. At least 32 of the last 64 semester hours credited toward this degree must be taken in residence at Bloomsburg University. This does not include the credits earned through advanced placement.

A registered nurse holding a current license may petition for the privilege of establishing credit by examination in a course or courses in the Department of Nursing at Bloomsburg University. The Department of Nursing at Bloomsburg University. The Department of Nursing adheres to the policy for credit by examination established by the parent institution (refer to BU undergraduate catalog), emphasizing several very significant factors:

The student must present \*evidence of equivalent experience if the course content either through experience other than college attendance or through independent study of the course content.

The student must present \*evidence of equivalent experience if the course involves laboratory or studio work.

In addition, the following regulations govern the departmental policy for credit by examination:

1. Role Development for the Nurse Generalist (82.305), Introduction to Nursing Research (82.306), Community Health Nursing (82.410), and Leadership and Management in Nursing (82.413) are required courses and may not be petitioned for credit by examination.

2. A petition for credit by examination may be filed on the dates designated by the department if the RN demonstrates evidence of completing the prerequisites to each course.

3. A petition may be filled only once for each course.

\*Evidence of adequate experience/equivalent experience: Transcripts and supportive data submitted by the RN will be reviewed on an individual basis to determine whether or not previous theoretical and experiential learning has been validated.

## PRP 3452

### Course Repeat

Issued By: Wilson G. Bradshaw, Vice President and Provost  
for Academic Affairs

Effective Date: 6/3/97

Notes: Endorsed by BUCC April 3, 1991. Presented as  
information item to University Forum April 24, 1991.

Revised by BUCC 10/25/95. Presented to University  
Forum November 8, 1995. Revised by BUCC 2/12/97.

Presented to University Forum April 2, 1997.

### Undergraduate

A maximum of four courses numbered 100 and above in which grades of C-, D+, D or E have been recorded may be repeated. The initial grade remains on the transcript and is part of the student's permanent record. Quality points are awarded for the grade of the repeated course only. The grade of the repeated course is part of the permanent record and is used to calculate the student's quality point average. Multiple repeats of the same course are considered as one repeat. A course taken at Bloomsburg University in which a grade of C-, D+, D or E has been earned and repeated at another institution of higher education is included in the permitted maximum number of repeats.

## PRP 3454

### Undergraduate Pass/Fail

Issued by: Patrick J. Schloss, Ph.D., Interim Provost and  
Vice President for Academic Affairs

Effective Date: Fall 2001

Notes: Endorsed by BUCC November 28, 1990. Revised by  
BUCC 4/8/1998. Presented to University Forum April 15,

1998 for information purposes only. Revised by BUCC  
January 17, 2001. Presented to University Forum February  
7, 2001 for information purposes only.

**Introduction.** There are two circumstances in which the usual grading scheme (A, A-, B+, etc.) may be replaced by Pass/Fail (P/F). The first is the Pass/Fail Option for Students which may be elected by a student. The rules governing the Pass/Fail Option are under I. The second is Pass/Fail Only Courses which allows a department to offer a course only pass/fail when appropriately approved. Section II below governs Pass/Fail Only courses.

### Pass/Fail Option for Students

After attaining sophomore standing, a degree student may elect courses on a pass/fail basis until the final day of registration in accordance with the following rules:

1. A maximum of two courses (not more than eight semester hours in total) may be included as part of the minimum graduation requirement of 128 semester hours. No more than one Pass/Fail Option course may be taken in any one semester.

2. Courses taken using the Pass/Fail Option must be free electives. No required courses may be taken using the Pass/Fail Option. Required courses are those used

to satisfy requirements for majors (including required cognate courses), minors, or general education.

3. The instructor is not informed that the course is being taken on a

Pass/Fail Option basis. Grades are translated later into grades of "P" or "F" with the grade of "P" recorded for a grade of "D" (1.0) or higher and the grade of "F" recorded for "E."

4. A grade of "P" and "F" does not enter the computation of a quality point average.

5. If, subsequent to the completion of a course on a Pass/Fail Option basis, the student should change his/her major to one in which the instructor's original grade is required, he/she may request that the chairperson of the academic department be notified of the actual letter grade earned.

6. A student who has received a grade of "E" in a course may not take it later on a Pass/Fail Option basis.

7. The student may revoke a decision to take a course on a Pass/Fail Option basis. The revocation must be completed by the close of the business day three weeks after the middle day of the semester. This will allow the pass/fail option to be used again.

Note: The effective date of this policy is the beginning of the 1991-1992 academic year for all entering, re-entering, and transfer students. Other students may choose to abide by these regulations or the pass/fail regulations that prevailed at the time of their entrance into the university.

### Pass/Fail Only Courses

1. A department may apply to have one (or more) of its courses to be offered on a Pass/Fail Only basis. (Approval must be given by the college curriculum committee, college dean, university curriculum committee and provost. See the Omnibus Course and Program Development Cover Sheet.)

2. A course that is offered on a Pass/Fail Only basis is exempt from all the restrictions except 14 listed under Pass/Fail

Option for Students. In particular, such a course may be used to meet general education requirements or requirements of a major when appropriately approved). Furthermore, a course which is offered on a Pass/Fail Only basis shall not be included in the two course maximum of the Pass/Fail Option for Students.

3. A grade of "P" and "F" does not enter the computation of a quality point average.

## PRP 3456

### Auditing of Courses

Issued by: John A. Hoch, Dean of Instruction

Effective Date: September, 1971

NOTES: Approved by the Faculty Senate, May 6, 1971.

A full-time student who is enrolled for less than seventeen hours of course work may, with consent of the

Vice President for Academic Affairs and subject to attendance fees, register for one course as an auditor. If the registrant attends at least three-fourths of the regular class meetings the grade of V will be reported by the instructor and the course will be entered on the academic record without credit. No assignments are made to an auditor and no papers or examinations are accepted by the instructor for grading or record either during the period of enrollment or subsequent thereto. An auditor may not participate in laboratory or studio work if such work is part of the course audited.

A part-time student may register as an auditor, subject to the provision that when computing the fee paid by the student the course audited will be counted the same as if it were taken for credit. Individuals who are not enrolled as students may apply for audit privileges through the Dean of Extended Programs. Acceptance depends upon such factors as space in class and educational background.

### **PRP 3462**

## **Withdrawal**

Issued by: Wilson G. Bradshaw, Provost and Vice President  
Effective Date: Fall 1996

Notes: Approved by Representative Assembly, March 11, 1981. Amended by the approval of Policy #3439 Student Scheduling Policy. Approved by CCAA, 3/7/84. Approved by RAX 3/21/84. Approved by RA, 4/4/84. Approved by BUCC 2/28/96. Presented to the University Forum April 3, 1996.

### **Undergraduate**

After the schedule change period and continuing until three weeks past mid-term, if a student withdraws from a course a grade of "W" will be recorded. As a means of notification of the instructor to the intent to withdrawal, a student is required to obtain his/her instructor's signature on the withdrawal form.

No withdrawals will be permitted after the close of the work day three weeks after the middle day of the semester.

Prior to the last week of classes, in exceptional circumstances, for compelling, justified and documented reasons, the Dean of the College in which the course is being taught may waive these restrictions. Poor academic performance will not constitute grounds for late withdrawal.

A limit of four (4) withdrawals during the degree program shall apply. (Withdrawal from the University is an exception). Faculty are encouraged to include the University late withdrawal policy on the syllabus distributed to students at the beginning of the semester.

This policy will apply to all undergraduate students who are enrolled Fall 1996.

### **Graduate**

The graduate student must apply to the Assistant Vice President for Graduate Studies and Research for permission to withdraw. If this permission is requested before the midterm of the semester, the grade is W. If the withdrawal is

after the mid-term of the semester, the grade is W providing the student is passing the course, and E otherwise. The Office of the Registrar establishes the semester's mid-term.

### **PRP 3463**

## **Graduate Course Withdrawal**

Issued By: Dr. Patrick J. Schloss, Interim Provost and VPAA  
Effective Date: Fall 2001

Notes: Endorsed by Graduate Council 12/1/00. Approved by Bloomsburg University Curriculum Committee, February 14, 2001.

During the Fall and Spring semesters, after the schedule change period and continuing until three weeks past mid-term, if a student withdraws from a course, a grade of "W" will be recorded. As a means of notification to the instructor of the intent to withdraw, a student is required to obtain the instructor's signature and the signature of the program coordinator on the withdrawal form. No withdrawals will be permitted after the close of the workday three weeks after the middle day of the semester. For summer sessions and courses not taught on a regular semester basis, the Registrar will prorate the date appropriately.

Prior to the last week of classes, in exceptional circumstances, for compelling, justified and documented reasons, the Dean of Graduate Studies and Research may waive these restrictions. Poor academic performance will not constitute grounds for late withdrawal. If withdrawal is granted after the deadline, the grade is W providing the student is passing the course, and E otherwise.

A limit of two (2) withdrawals during the degree program shall be permitted. Re-registration for withdrawn courses requires the approval of the program coordinator. Students withdrawing from the university may exceed the two course withdrawal limit. Faculty are encouraged to include the university late withdrawal policy on the syllabus distributed to students at the beginning of the semester.

Refund of tuition for withdrawn courses are prorated based on week of withdrawal. The refund policy is published annually by The State System of Higher Education.

### **PRP 3506**

## **Class Attendance**

Issued By: Betty D. Allamong, Provost and Vice President for Academic Affairs

Effective Date: April 5, 1989

Notes: Approved by BUCC April 5, 1989

Regular classroom attendance is expected of all students. However, a student will be afforded reasonable assistance by a faculty member when class work is missed as a result of extenuating circumstances beyond the student's control, such as but not limited

to:

1. Personal illness
2. Death or critical illness in the immediate family
3. Participation in a college-sponsored co-curricular activity (Mutually satisfactory arrangements for assistance must be made by the student when the activity is announced.)

Instructors are encouraged to use their professional judgment in deciding the legitimacy of each case and may request the student to provide official documentation to verify the reasons for the absence.

The instructor is not required to give makeup examinations or review other class work missed as a result of unauthorized absences other than those authorized by this policy.

A faculty member, with departmental approval, may adopt a reasonable alternative policy if class members are provided that policy in writing during the first week of classes.

## PRP 3512

### Academic Integrity Policy

Issued by: Wilson Bradshaw, Provost and VP Academic Affairs

Revised by BUCC 4/22/98, Presented to Forum 4/29/98,  
Effective date: 5/28/98

#### What is Academic Integrity?

Academic integrity refers to the adherence to agreed upon moral and ethical principles when engaging in academic or scholarly pursuits. The university's academic integrity policy is part of an effort to nurture a community where trust, honesty, and personal integrity guide all of our dealings with one another. Personal integrity is vital to our pursuit of educating and becoming educated. This student academic integrity policy is only part of, not the entirety of, efforts to foster a community of trust; trust is built first on our actions toward each other. The responsibility to be honest, fair and forthright with others is a responsibility that each member of the Bloomsburg University community must accept. The conditions of an academic integrity policy spell out the nature of the expectations we have of one another, and explain the sanctions that follow the failure to live up to these expectations. The following policy sets a standard for all of us to live up to and exceed.

#### What is Academic Dishonesty?

The following types of behaviors are examples of academic dishonesty. This list is not, and cannot be, exhaustive. Students who are unsure if an act is academically dishonest have a duty to consult their professor before engaging in the act.

1. Cheating: (a) Using notes, study aids, or information on an examination which are not approved by faculty; (b) Altering graded work after it has been returned and submitting the work for regrading; (c) Allowing another person to do one's work and submitting that work under one's own name; (d) Submitting identical or similar papers

for credit in more than one course without prior permission from the course instructors.

2. Plagiarism: Submitting material that in part or whole is not one's own work without attributing those same portions to their correct source.

3. Fabrication: (a) Falsifying or inventing any information, data, or citation; (b) Presenting data that were not gathered in accordance with standard guidelines that defined the appropriate methods for collecting or generating data and failing to include an accurate account of the method by which the data were gathered or collected.

4. Misrepresenting Circumstances: (a) Lying; (b) Presenting a professor (verbally or in writing) with false or incomplete information.

5. Impersonation: (a) Representing oneself as another student in an examination; (b) Signing another's name on an attendance roster; (c) In general doing the work required of another student and/or allowing another to do your work.

6. Obtaining an Unfair Advantage:

- (a) Stealing, reproducing, circulating or otherwise gaining access to examination material prior to the time authorized by the instructor; (b) Stealing, destroying, defacing or concealing library materials with the purpose of depriving others of their use; (c) Unauthorized collaborating on an academic assignment; (d) Retaining, processing, using or circulating previously given examination materials, where those materials are to be returned to the instructor at the conclusion of the examination; (e) Intentionally obstructing or interfering with another student's academic work; or (f) Otherwise undertaking activity with the purpose of creating or obtaining an unfair academic advantage over other students' academic work.

7. Aiding and Abetting Academic Dishonesty: (a) Providing material, information, or other assistance to another person with knowledge that such aid could be used in any of the violations stated above; or (b) Providing false information in connection with any inquiry regarding academic integrity.

8. Falsification of Records and Official Documents: (a) Altering documents affecting academic records; (b) Forging signatures of authorization or falsifying information on an official academic document, grade report, letter of permission, petition, drop/add form, ID card, or any other official University document.

9. Unauthorized Access to Computerized Academic or Administrative Records or Systems: (a) Altering computer records; (b) Modifying computer programs or systems; (c) Releasing or dispensing information gained via unauthorized access; or (d) Interfering with the use or availability of computer systems of information.

How can faculty encourage Academic Integrity?

It is necessary for the administration and faculty to do all that is possible to encourage high standards of academic integrity. Steps that could be taken include:

1. **Course Requirements:** Have the syllabus clearly state what is and is not acceptable in the course. This may include a statement of an individual or department's policy on what constitutes plagiarism, the scope of permitted collaboration, testing behaviors, policy on recycling assignments and papers, and missed assignments or exams.

2. **University Policy:** Briefly review the university Academic Integrity Policy on the first day of class, orally or by reference to a syllabus.

3. **Examination Security:** Safeguard examinations. In no event should the student be given access to, custody of, or any responsibility over examinations prior to their administration.

4. **Examination Environment:** Consider preventive techniques, such as alternate seating or alternate exam formats, and reasonable proctorial activities.

5. **Availability of Past Examinations and Assignments:** Establish individual and/or departmental policies for returning examinations for students to keep, collecting and securing examinations, and/or placing copies of old examinations on reserve in the library.

6. **Student Responsibility:** Faculty are encouraged to state in all syllabi that students who are unsure if an act is academically dishonest have a duty to consult their professor before engaging in the act.

What happens when a student is suspected of Academic Dishonesty?

The first step in any alleged case of academic dishonesty will be for the faculty member to inform the student that dishonesty is suspected and that steps will be taken to resolve the issue.

If the faculty member would like to resolve the issue informally and if the student accepts the charges and the penalty, then the faculty member chooses between Options I and II.

Option III is required when the student does not accept the charges or the penalty, or the faculty member believes that a penalty greater than failing the course is appropriate.

If dishonesty is discovered at or after the end of the semester, the faculty will not enter a grade for that student; thus the student will receive an "X" grade. The faculty member will either contact the student directly to set up the initial meeting or contact the Office of Academic Affairs who will notify the student of the need for such a meeting.

#### **Option I: Informal Confidential Resolution**

The faculty member may resolve the charge confidentially with the student, discussing the alleged offense and explaining any penalty that might follow; students who dispute the fairness of the charge or penalty may elect to have the matter arbitrated by the Academic Grievance Board.

The professor has a range of sanctions within the boundaries of the course in which the dishonesty occurred. Possible sanctions include verbal and written reprimand, an appropriate additional assignment, lowering the grade on the assignment on which the dishonesty occurred, failing the assignment on which the dishonesty occurred, lowering the course grade, and failing the course.

The faculty member is strongly encouraged to have this agreement in writing, and to keep that document and any evidence in a secure location.

#### **Option II: Informal Resolution with a Filed Report**

The faculty member may follow the guidelines given in Option I, Informal Confidential Resolution, and, in addition, file an Academic Integrity Policy Violation Report Form with the Director of Student Standards. The Report Form explains the offense and penalty and includes an acknowledgment by the student of the offense and penalty. The penalty agreed to on the Academic Integrity Policy Violation Report Form will be void if the student has a record of a previous offense. A second or repeat offense requires resolution by the Academic Grievance Board.

#### **Option III: Formal Resolution by the Academic Grievance Board**

If the student accepts the charges (1) but does not accept the penalty or (2) has had a previous offense, the sanction will be determined by the Provost (or his/her designee) in consultation with the Director of Student Standards.

If the student does not accept the charges, the case will be arbitrated by the Academic Grievance Board. The faculty member should fill out the Academic Integrity Formal Resolution Notification Form. Once it is determined that a case will be heard by the Academic Grievance Board, the Director of Student Standards will notify all involved parties of the need to convene the Board. The Office of Academic Affairs will provide the student with written notification of the time and place of the hearing and with a copy of any written charges. The hearing will be recorded and a recommendation made to the Provost as to whether a policy violation occurred.

The Provost will make the final determination as to whether academic dishonesty occurred. If the student is cleared of the charges, the initial report form will be destroyed and the student's record will be totally clear of the event. If it is determined that a violation did occur, the Provost will determine the appropriate sanction in consultation with the Director of Student Standards.

The decision of the Provost will be final.

## **PRP 3516**

### **Academic Examination Policy**

Issued By: Larry W. Jones, Provost and VPAA

Effective Date: May, 1986

NOTES: Approved by CCAA, 12/26/83. Approved by RAX, 1/18/84. Defeated by RA 2/1/84. Amended and approved by RA, 4/4/84. Amended and approved by BUCC, 3/5/86.

1. Faculty shall give examinations during the regularly scheduled classes of the scheduled classes of the academic year as outlined by the approved University Calendar. The faculty are responsible for determining the length, frequency, form and content of all examinations within the guidelines listed below. Final examinations shall be given, where applicable, only during the designated Final Examination Week after the end of regularly scheduled classes and only at the designated time and place according to the Final Examination Schedule.

2. Faculty shall distribute in writing the requirements for

each course within the first week of each academic term. (See policy issuance 3264). In these requirements final examinations shall be worth no less than twenty percent nor more than forty percent of the course grade. No single exam, paper, project, or assignment shall have greater emphasis than the final examination. As a result of this condition, every course must use at least three evaluations for grading purposes.

3. Faculty shall give final examinations which are comprehensive in design, emphasizing subject matter presented over the entire term.

4. Faculty shall return and/or permit students to review all unit tests, quizzes, and other types of evaluations by the last regularly scheduled class in the term. In order to prevent an excessive build-up in the number of unit tests for each student during the last week of classes, faculty are advised to refrain from testing during that week.

5. The Final Examination Schedule shall be prepared by the Office of the Registrar with consultation of the faculty, if necessary, and approved by the Provost and Vice President for Academic Affairs. Regularly scheduled final examination periods shall be 120 minutes in length. Part of the final examination week shall include at least a one-day interval between the last full day of classes and the first day of scheduled examinations. This time shall be designated as the Reading Period.

6. The following restrictions are imposed on the scheduling of activities during the Final Examination Week.

a. Faculty are not required to be available to students for conference during the final examination week.

b. No examinations shall be scheduled during the Reading Period unless approved by the Provost and Vice President for Academic Affairs.

c. No extra-curricular activities or faculty-administrative activities shall be scheduled except with the consent of the individual involved.

7. The Andrus Library will remain open and other designated study areas will be made available during the Final Examination Period with expanded hours when possible.

8. Unless returned to the student all graded final examinations must be available for student review for at least the next full semester following the final examination.

9. No student shall be required to take more than two final examinations in one day. (See procedure outlined below for rescheduling of final examinations.)

10. Any exceptions to any of the above matters must be made on the basis of the procedures outlined below.

11. In case of non-compliance with the provisions of this policy, a student has the recourse of proper grievance procedures as established by the University and outlined in policy issuance 3592.

12. During Summer Sessions, the last class period of each course shall be designated as the final examination period with the time period for the examination not to exceed 80 minutes unless the arrangements have been worked out in advance so that they can be announced at the first meeting of the class. Except in unusual circumstances, classes in six-week sessions shall have the final examination on the last day of the course. Final examinations for courses scheduled in three-week sessions shall be held during the last of the two class periods scheduled for the last day. Classes in the nine-week session shall hold final examinations on the last

scheduled class day with the period extended to 80 minutes for that class.

## Procedures

1. Faculty who wish to schedule quizzes, tests or examinations at other times than during their regularly scheduled class periods during the term, may do so only if a make-up opportunity is made available to students. This opportunity must be scheduled at a time mutually acceptable to both student and faculty and may not conflict with the student's other scheduled classes. A faculty member shall not give an examination at a time other than during a regularly scheduled class period unless approval is first obtained from the majority of the faculty members of his/her academic department. Except for abnormal circumstances, this approval should be granted by the end of the first week of classes. Notification of this alternative arrangement shall be given to the appropriate college dean.

2. A faculty member who believes that the content of his/her courses does not lend itself to a scheduled final examination must obtain approval for an alternative arrangement from the majority of the members of his/her academic department and college dean. Notification of the approved arrangement shall be given to the office of the Registrar. Except for abnormal circumstances. This approval and notification shall be made by the end of the first week of classes.

3. To change the requirement specifying that final examinations shall be worth no less than twenty percent nor more than forty percent of the course grade, there must be agreement for the change by the faculty member(s) in charge of the class, the majority of the members of his/her academic department, and the appropriate college dean. Except for abnormal circumstances, the approval and notification to students shall be made by the end of the first week of classes. If approved, the change may remain in effect for the faculty member for the duration of this policy or until the course is resubmitted for course content change.

4. In order to change the time and place scheduled for a final examination, there must be agreement for the change by the faculty member(s) in charge of the class, 100% of the students in the class, and the appropriate College Dean. This change must be made by the middle of the semester. Student opinion in this matter shall be determined by secret ballot with the faculty member in charge of the vote. If for some reason a change is made in the time and date of a final examination that results in a student conflict, the faculty member shall arrange to provide a make-up opportunity during the Final Examination Period. (See below)

5. If the student has a scheduling conflict during the final examination period resulting in an excessive number of final examinations scheduled for one day, the following procedure for rescheduling the final examination shall apply and be completed by at least two weeks before the end of regularly scheduled classes.

The student should select two of the scheduled examinations to be taken during the designated time according to the following priority of choice:

1. courses offered by the major department;
2. additional required courses in the major program;
3. other courses.

The additional final examination(s) should be rescheduled

with consultation of the relevant faculty on a mutually convenient time. Assistance in the rescheduling of examinations may come from such individuals as the student's advisor, department chairperson or academic dean.

## PRP 3522

### Grades, Quality Points and Quality Point Averages

Issued By: Dr. Carol J. Matteson, Interim Provost and V.P. for Academic Affairs

Effective Date: August 28, 1995 and - August 26, 1996

Notes: This policy voids PRP 3524. Approved by BUCC, 4/24/85. Amended and approved by Graduate Council 2/15/94. Approved by BUCC, 4/27/94. Approved by Forum 10/19/94. Amended by BUCC 4/12/95. Presented to the University Forum 4/19/95.

The grades given at Bloomsburg University with their commensurate quality points are defined as follows:

A = 4.00 Superior Attainment

A- = 3.67

B+ = 3.33

B = 3.00 Above Average Attainment

B- = 2.67

C+ = 2.33

C = 2.00 Average Attainment

C- = 1.67

D+ = 1.33

D = 1.00 Minimum Attainment

E = 0.00 Failure

The grades given to each student for academic credit at Bloomsburg University are assigned by those faculty who are responsible for the courses in which the student is enrolled. After a grade of A through E has been reported to the Office of the Registrar, it may be changed only through the grievance process (see policy #3592) through the appropriate procedure to correct computational or clerical error (see policy #3636) or in accordance with University Policy on Pass-Fail grades (see policy #3454).

Other grades assigned to students not included in the computation of quality point averages are as follows:

I- Incomplete. This is a temporary grade to be given only when the instructor believes that the student has been unable to complete the course requirements due to circumstances beyond his/her control. Failure of a student to take a final examination or complete other course requirements without prior arrangement with the instructor of legitimate excuse is not a justification for a grade of I.

When the instructor submits the grade of I to the Registrar, it must be accompanied with a formal, written plan for the student to complete the course requirements and the appropriate letter grade that would be assigned if the plan were not completed by the student in the time specified. The plan for the student to complete the course requirements shall be drawn up by the instructor with the acquiescence of the student. Unless specifically stated in the written plan to the contrary, it is assumed that work will be completed prior to the

end of the next regular semester. When the plan has been completed by the student, the instructor shall recalculate the grade to be assigned for the course and submit this new grade to the Registrar according to established procedures. A request for an extension of time in the plan to complete course requirements must be initiated by the student prior to the deadline of the plan on file in the Office of the Registrar. The student must present suitable documentation to the instructor indicating that circumstances above and beyond his/her control persist or new circumstances of that nature have developed. It will be granted only upon approval of the instructor and the Dean of the appropriate College.

P- Passed. It is recorded by the Office of the Registrar when the faculty member assigned a passing grade to a student and when the student has elected to take a course on a pass-fail basis in accordance with the provisions of the Pass-Fail policy #3454. The grade of P is also recorded when a student passes a course by proficiency examination. This grade is not used in the computation of a quality point average.

F- Failed. It is recorded by the Office of the Registrar when the faculty member assigned a failing grade to a student and when the student has elected to take a course on a pass-fail basis in accordance with the Pass-Fail policy. This grade is not used in the computation of a quality point average.

V-Audit. This grade is assigned by the instructor when the student has properly registered to audit a course, and the student has attended at least three-fourths to the regular class meetings. (See policy #3456).

W- Withdrawal. This grade is recorded by the Registrar when the student has withdrawn from a course according to the requirements found in policy #3462 Withdrawal from a Course.

R- Research in progress. This grade is assigned by the instructor only when a student has been unable to complete a research component of a course because the length of time for the research exceeds the end of the semester and when a formal plan for completion of the research is filed with the instructor and department chairperson. Provisions for removal of the grade are the same as those for the grade of I.

The instructor will submit the grade of R to the Registrar along with the formal plan for completion of the research and the grade to be assigned to the student if the research is not completed satisfactorily in the time period stipulated. The plan for the student to complete the research shall be drawn up by the instructor with the acquiescence of the student. Unless specifically stated in the written plan to the contrary it is assumed that the work will be completed prior to the end of the next regular semester. When the plan has been completed by the student, the instructor shall recalculate the grade to be assigned for the course and submit this new grade to the registrar according to established procedures.

X- No grade reported. This temporary grade is

reported by the Office of the Registrar when the instructor does not report any grade for the student. The Quality Point Average (abbreviated QPA) is computed from the record of courses taken at Bloomsburg University using the assigned grades of "A" through "E" as listed above. The computation is as follows:

1. Multiply the number of semester hours for each course by the number of quality points for the grade in the course, and add the products.
2. Divide the sum obtained in the first step by the total number of semester hours represented by the courses.

A "Semester QPA" is computed by including only the courses of a single semester. The "Cumulative QPA" is that computed by including all courses taken to date at Bloomsburg University. If a course has been successfully repeated, the credits are counted only once in the computation. If a course is successfully repeated at another accredited institution of higher education, the credits for the course initially taken at Bloomsburg are deleted from the computation.

## PRP 3536

### Grade Change

Issued By: Dr. Carol J. Matteson, Interim Provost and V.P.  
for Academic Affairs

Effective Date: August 28, 1995

Notes: Approved by CCAA, October 13, 1982. Amended by RAX, October 20, 1982. Accepted by Representative Assembly, November 3, 1982. Amended by BUCC 4/12/95. Presented to University Forum 4/19/95.

After a grade has been reported to the Registrar's Office, it may be changed only through the grievance process or to correct a computational or clerical error. A recommendation for change of grade due to a computational, clerical error, or to change a temporary grade to a final grade must be made in writing by the instructor and approved by the department chairperson and the dean of the appropriate college. The change of "R" and "I" grades do not require the dean's signature.

## PRP 3540

### Department of Nursing Academic Good Standing

Issued by: Dr. Wilson G. Bradshaw, Provost and Vice  
President for Academic Affairs

Effective Date: Fall 1999

NOTES: Approved by CCAA, 11/7/84. Approved by RAX, 11/14/84. Approved by RA, 11/28/84. Revised by BUCC 3/3/93. Revised by BUCC 2/8/95. Submitted to University Forum for information purposes. Revised by BUCC 4/28/99. Submitted to University Forum for information purposes.

I. Students in the Baccalaureate Nursing Program abide by the University's retention policies as outlined in the undergraduate catalog.

II. A student in the Baccalaureate Nursing Program must

maintain the following standards for Academic Good Standing to progress in the Department of Nursing.

A student must:

A. Attain a grade of "C" or above in:

1. prerequisite natural science courses  
50.173 Anatomy and Physiology I  
50.174 Anatomy and Physiology II  
52.101 Introductory Chemistry  
52.108 Physiological Chemistry  
50.240 Introductory Microbiology

2. prerequisite social science courses

- 48.101 General Psychology  
48.210 Life Span Psychology  
45.211 Principles of Sociology  
or  
45.213 contemporary Social Problems (add)  
or  
46.200 Principles of Cultural Anthropology (add)

3. all required 82. Departmental courses.

B. Obtain a cumulative GPA of 2.50 (after 32 earned credits) to enroll in the sophomore year nursing courses.

III. A student who does not meet the identified requirements for Departmental Academic Good Standing will be required to eliminate the identified deficiencies through a repetition of the course before progressing in the Baccalaureate Nursing Program.

A student may fail only one 82. Departmental clinical course. A second failure in any clinical course will result in dismissal from the program. In addition, a student may repeat non-clinical nursing courses only once. University policy as to repetition of non-nursing courses applies to the department of nursing.

IV. The Department reserves the right and the responsibility to develop procedural guidelines for the implementation of this Academic Good Standing policy.

Recommendations concerning academic progression and retention are made to the Department of Nursing Chairperson by the departmental Student Admission, Progression, and Retention Committee. Based upon the recommendations, students who do not meet the requirements for academic good standing are placed on departmental probation or are required to take departmental leave of absence.

V. Departmental Academic Probation

A student who does not meet the identified requirements for Departmental Good Standing will be evaluated by the Committee on Student Admission, Progression, and Retention and will be immediately placed on Departmental Academic Probation.

B. The student will be notified of this decision by the Chairperson of the Department of Nursing.

C. The student will be required to eliminate the identified deficiencies through a repetition of the course before progression in the Baccalaureate Nursing Program.

D. A student may fail only one 82. Departmental clinical course. A second failure in any clinical course will result in dismissal from the program. In addition, a student may repeat non-clinical nursing courses only once. University policy as to repetition of non-nursing courses applies to the department of nursing.

VI. Departmental Academic Leave of Absence

A. A student who does not attain departmental academic good standing after one academic period on probation will be required to take departmental academic leave of absence.

B. The student will be notified of such actions by the Chairperson of the Department of Nursing.

C. A student on a departmental academic leave of absence is ineligible to attend any course offered by the Department of Nursing. When on departmental academic leave, a position will be guaranteed for the student for no more than one calendar year. If at the end of the calendar year the student is not ready to return from departmental leave of absence, that student will be considered to be withdrawn from the program.

D. A student seeking reinstatement from a departmental academic leave of absence must do so in accord with the Departmental Transfer Policy.

January 20, 1984 Incorporated into BU Policies, Rules and Procedures Manual as #3540 effective November 28, 1994.

Revised by Faculty May 1996

## VII. Statue of Time Limitation

### Policy Statement

Once a student has begun the first required 82. departmental course, all required 82. departmental courses must be completed within five calendar years.

### VIII. Appeal

A student placed on Departmental Academic Leave of Absence may petition the Academic Review Board for reinstatement. (Refer to Policy 3557- Appeals.)

## PRP 3557

## Academic Dismissal and Appeals Procedure

Issued by: JoAnne S. Growney, Acting Provost and VPAA  
Effective Date: August, 1984

Notes: Approved by RA, 12/10/79. Amended by CCAA, 3/7/84. Approved by Vice President's Advisory Council, 4/5/84. Amended by RAX, 4/18/84. Approved by RA, 5/2/84.

### Policy:

1. A student who fails to meet the minimum grade point standards for retention (see Policy #3446 Undergraduate Satisfactory Progress) is dismissed from the University, and his/her record is marked by the phrase "Academic Dismissal".

2. A student who has been dismissed may not enroll in any university courses for a period of one calendar year. If the student wishes to resume academic work at the University, he or she must go through a readmission process.

3. A student who has been dismissed may appeal the dismissal in accordance with the procedures below. If the student is reinstated, he/she must meet all the conditions attached to the reinstatement. These conditions include a limitation on the number of credits that may be taken and the minimum grades that must be earned. Failure to meet the conditions will again lead to academic dismissal for which there is no appeal.

### Procedures:

**1. Each student who is academically dismissed will receive a letter, outlining the appeals process, from the Chairperson of the Academic Review Board.**

2. The Academic Review Board consists of all College Deans, the Dean of Admissions, the Registrar, the Coordinator of Academic Advisement, a designee of the Vice President for Student Life, and the Director of the Counseling Center.

3. A student who appeals must write and submit an appeal petition to the chairperson of the Academic Review Board within the time frame stated in the dismissal notice. The petition must set forth:

a. The reasons why the student believes he/she should be reinstated;

b. The student's plan for meeting retention requirements.

4. In its evaluation of a petition for reinstatement, the Academic Review Board is charged to assess carefully the likelihood that the petitioning student can meet successfully the academic requirements that he/she will face during subsequent semesters. The Board may request additional information from the student, his/her advisor or other university officials. Non-academic, as well as academic, factors may be considered if they are pertinent to the student's argument for reinstatement.

5. If the Academic Review Board votes to reinstate the student, the Board will set forth the conditions that must be met by the student.

6. If the Academic Review Board denies reinstatement, the dismissal is final.

## PRP 3565

## Graduate Academic Progress, Probation, and Dismissal

Issued by: Wilson G. Bradshaw, Provost and Vice President for Academic Affairs  
Effective Date: 6/3/97

Notes: Endorsed by Graduate Council November 5, 1990.

Endorsed by the Bloomsburg University Curriculum

Committee November 14, 1990. Presented as an information item to the University Forum January 30, 1991. Graduate Council voted to modify on October 19, 1994. Approved by BUCC January 18, 1995. Presented to Forum 2/1/95. Reviewed by BUCC February 12, 1997. Presented to Forum April 2, 1997.

### Procedures:

#### 1. Satisfactory Progress

Satisfactory academic progress at the graduate level is evaluated on the basis of several criteria:

a. a graduate student's ability to earn the minimum of credit hours necessary to the degree program with a minimum quality point average of 3.0. A grade of less than C (Q.P. less than 2.0) must be repeated.

b. a second grade less than C (Q.P. less than 2.0) will result in automatic academic dismissal.

c. a graduate student's ability to successfully

meet the requirements at the appropriate time of all comprehensive examinations of the degree program with acceptable grades.

d. a graduate student's ability to complete the thesis requirement of the degree program with a passing grade.

Non-degree students (Category 510), except for those in Supervisory Certificate Programs, are excluded from consideration for satisfactory progress.

## **2. Academic Probation**

a. A graduate student who is not maintaining an overall quality point average of 3.0 in one of the following student categories may request to attend on academic probation for one additional grading period (semester or summer):

- 1) regular graduate students (Category 540)
- 2) degree candidates (Category 550)
- 3) non-degree students (Category 510) in Supervisory Certificate Programs

Enrollment is limited to a maximum of nine semester hours for the grading period in probationary status. A student on academic probation is not eligible to hold a graduate assistantship. To be removed from academic probation, a graduate student with a quality point average deficiency must attain the minimum overall quality point average of 3.0 as required by the School of Graduate Studies for regular graduate students and degree candidates. A student who attains a 3.0 QPA or higher for the first grading period in academic probationary status, but does not attain the overall QPA as required, may be recommended by his/her academic advisor, the graduate program coordinator, and the department chairperson to the Assistant Vice President for Graduate Studies and Research for continuation on probation for one additional grading period.

b. A graduate student who receives a failing or unacceptable grade, as defined in advance by the department administering the graduate program, in any Comprehensive Examination will be placed on academic probation. Students will be allowed a maximum of two reexaminations unless the program requirements are more restrictive, in which case the maximum permitted by the program will prevail. Prior to re-examination, the student must meet with his/her examination committee or its representatives to discuss deficiencies and steps to be taken to correct them. Reexamination normally would be only once during a term or semester unless the student requests expedited reexamination in order to meet a graduation deadline. A student who passes a reexamination is automatically removed from probationary status.

c. Graduate students who submit a master's thesis which receives a failing grade may not attend on academic probation.

## **3. Duration Of Degree Work**

Full-time graduate students are expected to complete their programs of study within two calendar years of continuous enrollment. However, all requirements for a master's degree, including any courses accepted by transfer, must be completed within six calendar years. A student who is unable to complete degree requirements within six calendar years may be dismissed upon recommendation to the Assistant Vice President for Graduate Studies and Research by the

academic advisor, program coordinator, and department chairperson. Students who fail to register for any courses over a two-year period will automatically be placed in an inactive category and must reapply to the graduate program. The period for completion of a master's degree may be extended for sufficient reason. Written application for extension must be made to the Assistant Vice President for Graduate Studies and Research prior to the end of the six-year period.

## **4. Academic Dismissal**

A graduate student not maintaining satisfactory progress, who is not permitted to enroll in probationary status, is excluded from registration and his/her academic record is marked "academic dismissal." Dismissal is automatic if the overall QPA is below the minimum after two grading periods in probationary status or after failing to pass the Comprehensive Examination two times while in probationary status. A graduate student under academic dismissal is not eligible to attend courses offered in the School of Graduate Studies for a period of at least one calendar year. A dismissed graduate student may, after a period of one year, reapply to the School of Graduate Studies in order to undertake studies in a new degree program or to further his/her studies in a non-degree status. A dismissed graduate student is not permitted to register for any courses offered by the program from which he/she was dismissed. Under exceptional circumstances and with the approval of the Assistant Vice President for Graduate Studies and Research, a program may readmit a dismissed student. In the latter instance, the normal six-year limitation for expired courses shall be applied.

## **5. Procedures**

Graduate students who fail to meet the minimal standards for satisfactory progress will be notified by the Registrar's Office and/or the Assistant Vice President for Graduate Studies and Research. Failure to request academic probation will result in academic dismissal (see above). Such students may submit a request in writing to their academic advisors to attend on academic probation. Upon recommendation of the academic advisor, graduate program coordinator, department chairperson, and approval by the Assistant Vice President for Graduate Studies and Research, probationary status will be granted. Exceptions to these procedures under extraordinary circumstances will be by written request to the Assistant Vice President for Graduate Studies and Research.

## **6. Appeals**

Graduate students dismissed for academic reasons may appeal their dismissal within one year, in writing, to the Graduate Council. The decision of the Council is final.

## **PRP 3581**

## **Withdrawal from the University**

Issued by: Wilson G. Bradshaw, Vice President and Provost  
for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by CCAA, March 31, 1982. Accepted by Representative Assembly, 5/5/82. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

A student may withdraw from the university by completing a withdrawal form available at the Office of the Registrar.

Students withdrawing in absentia must submit a written request to the Office of the Registrar.

When students withdraw during the semester, the grade of W is recorded for each course on the student's schedule if the withdrawal occurs prior to the beginning of the final examination period. Students may not withdraw during the final examination period.

The effective date of the withdrawal is the date on which the student signs the official withdrawal form in the Office of the Registrar or the date on which the written request is received by the Office of the Registrar for a student withdrawing in absentia.

## PRP 3592

### Academic Grievance Procedure

Issued by: Wilson G. Bradshaw, Provost and VPAA

Effective Date: Fall 1988

Notes: Endorsed by BUCC April 4, 1990; brought to

Forum April 25, 1990; revisions endorsed by BUCC

September 15, 1993. Brought to Forum 11/10/93,

endorsed by Forum 2-2-94. Reviewed at Meet and Discuss

2-20-98. Revised at BUCC

4/8/98. Presented to University Forum 4/15/98 for

information purposes only.

#### Procedures:

**I. The purpose** of the following procedures is to provide students with a system by which to grieve complaints of alleged academic injustice(s) relating to grades and/or professional responsibilities as related to academic policies found in the Policies, Rules and Procedures and the Pilot. This process is not a disciplinary proceeding for any of the involved parties, although the findings may lead to disciplinary investigation or action under a different university policy.

The names of the Academic Grievance Coordinators (AGC) will be advertised extensively through normal communication avenues such as The Communique and The Voice.

#### *II. Informal Consultation:*

A. In an attempt to resolve a complaint on an informal basis, the student should first meet with the following individuals to discuss the matter in the order listed:

1. Faculty member teaching the course
2. Department Chairperson in which course is offered
3. Dean of the College in which course is offered

In order for the matter to be resolved expeditiously, the consultation(s) should take place as soon as possible after the alleged incident has occurred. It is assumed that the department chairpersons and the deans will make every effort to resolve the conflict by meeting with all parties and by listening to the views of all parties as they relate to the grievance.

B. If the matter is resolved at one of the above levels, it need not go further in the appeals process. Every effort should be made to settle the alleged injustice through informal consultation.

#### *III. Formal Channels:*

A. Students who feel the informal consultations have not satisfactorily resolved the matter may initiate a formal grievance by filing an Academic Grievance Form with an AGC of her/his choice. (See IV.A.)

B. The AGC shall determine that the Academic Grievance Form is in proper order and shall contact the person against whom the complaint has been filed. That person will be supplied with a copy of the Form and informed that the AGC will be called to hear the case if the matter cannot be resolved within five (5) class days.

C. If the two parties do not settle the complaint within five (5) class days, the AGB will hear the case within ten (10) class days (after the initial five (5) class day period).

D. The grievant and respondent (individual being grieved) will be informed of the individuals who may serve on the AGB. Either (or both) party(ies) may request, with just cause, the disqualification of Board members whom she/he feels may be biased or should not be involved in the case. An appeal for disqualification may be made to the Provost and Vice President for Academic Affairs for a final decision.

E. The scope of the AGB's review and recommendations shall be to the merit of the complaint. The AGB, in Executive Session, shall prepare a recommendation as to the merit of the complaint and forward the recommendation to the Provost and Vice President for Academic Affairs. This shall be submitted within three (3) class days after the hearing. If recommendations go beyond the scope of this policy, the Provost will reject the recommendation and direct the AGB to prepare recommendations within the scope of its responsibilities.

F. Within ten (10) class days of receiving the recommendation, the Provost and Vice President for Academic Affairs will take action and shall notify all parties in the grievance of the decision and action taken. This action is final.

G. The President has delegated the resolution of academic grievances covered under this policy to the Provost and Vice President of Academic Affairs. Resolutions that involve altering the curriculum of any program shall be made with the involvement of the affected department faculty (i.e. waiving major course requirements).

The time line outlined in this section pertains to grievances filed during the academic year. Grievances filed during the summer sessions may take longer to adjudicate due to faculty assignments and availability of grievance board members. However, every effort will be made to process grievances filed during the summer as quickly as possible.

#### *IV. Structure Of Formal Channels:*

A. Three (3) Academic Grievance Coordinators (AGCs), one (1) from each College, shall be appointed

by the Provost and Vice President for Academic Affairs with the advice and consent of the Executive Board of APSCUF. Both sexes should be represented among the three AGCs. The individuals must have a reputation for fairness and objectivity. An AGC will be responsible for ensuring that all procedural guidelines are met and shall serve as moderator for any formal hearing. It is noteworthy that the role of an AGC is as a neutral party. She/he does not have voting privileges, nor should her/his opinions be part of the hearing. The appointments should be made in such a way as to insure that at least one (1) individual with prior experience is retained.

B. An Academic Grievance Board (AGB) shall consist of four (4) students and four (4) tenured faculty members selected by the AGC (chosen by the grievant) from a pool of twenty-five (25) individuals: three (3) students and three (3) faculty members from the College of Business, three (3) students and three (3) faculty members from the College of Professional Studies, six (6) students and six (6) faculty members from the College of Arts and Sciences and one (1) faculty member from the Department of Developmental Instruction.

1. Faculty members for the AGB pool will be appointed by the College Dean or appropriate administrator of the academic area with the advice and consent of the Executive Board of APSCUF.
2. Student members will be appointed by the Vice President for Student Life with the advice and consent of the Community Government Association. Appointees must be in academic good standing and have earned at least 48 credits at Bloomsburg University. At least two (2) must be enrolled as graduate students.
3. Members of the pool will be appointed to a one-year term and may be considered for reappointment.
4. Whenever possible, a diversity in membership should be maintained in the pool.

C. The College Dean or appropriate administrator will provide the President of APSCUF with a list of possible candidates for the AGC and the AGB in a timely fashion. The President of APSCUF will consult with the Dean or appropriate administrator concerning the possible candidates if necessary. APSCUF Executive Board will provide its advice and consent of the candidates in a timely fashion.

D. The Vice President for Student Life will provide the President of CGA with a list of possible student candidates for the AGB in a timely fashion. The President of CGA will consult with the Vice President for Student Life concerning the possible candidates if necessary. CGA members will provide its advice and consent of the candidates in a timely fashion.

E. The AGB will select one (1) person to serve as a voting moderator of the Executive Session. This individual will be responsible for transmitting the

recommendation to the Provost and Vice President for Academic Affairs following the formal hearing.

F. Should the AGB members become deadlocked in preparing a recommendation, the voting moderator will inform the Provost and Vice President for Academic Affairs of such within three (3) class days of the hearing. Evidence and any reasons or arguments relating to the AGB's inability to make a recommendation will be submitted to the Provost and Vice President for Academic Affairs also. This information is intended to provide background for any decision by the Provost and Vice President for Academic Affairs.

G. An AGC or a member of the AGB pool has the right and obligation to disqualify herself/himself from a case in which a personal interest, association, affiliation, or attitude might cause bias or jeopardize the AGB's objectivity.

#### *V. Academic Grievance Hearing:*

A. In keeping with the campus standards of due process, both the grievant and respondent have the following rights: (1) to receive written notice of the time and place of the hearing at least 48 hours prior to the hearing; (2) to receive a written notice of the complaint; (3) to be accompanied by an advisor of his or her choice, other than a non faculty attorney; (4) to present witnesses and other evidence; and (5) to question witnesses. Attorneys, although they may be consulted, may not be present at the academic grievance hearing.

B. The hearing will be open only to the parties involved in the case.

C. A tape recording may be made at each hearing with the consent of the grievant and the individual being grieved. Said tape will be kept as a confidential file in the Office of the Provost and Vice President for Academic Affairs for a period of one (1) year.

D. The AGC will serve as the neutral presiding officer, and shall conduct the hearing in a fair and orderly fashion.

E. At least six (6) AGB members (three {3} faculty, three {3} students) must be present for the entire hearing and to prepare the AGB's recommendation. If the complaint is on the graduate level, at least one (1) graduate student must be present.

F. If the respondent (individual being grieved) fails to appear, testimony shall, nevertheless, be heard and a recommendation rendered. If the grievant fails to appear, the grievance will be dismissed.

G. If a claim lacks substantial evidence, the AGB will dismiss the case and no further action concerning the respondent (individual being grieved) will be taken by the AGB or the Provost and vice President for Academic Affairs.

H. No person shall suffer recrimination or discrimination because of participation in this procedure.

I. A majority of the twenty-five (25) AGB pool members, along with the AGCs will determine any other rules or procedures consistent with this document, not in conflict with the CBA or state and federal laws.

## PRP 3602

### **Majors, Minors, Career Concentrations and Teacher Certification**

Issued by: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs  
Effective Date: Fall 1995

Notes: Approved by CCAA, 10/26/83. Amended and accepted by RAX, 11/16/83. Accepted by Representative Assembly, 11/30/83. Reviewed by BUCC 4/26/95.  
Presented to University Forum September 20, 1995.

**Major** - Each student must complete a major field of study for graduation. A major field of study is one of the approved degree programs prescribed by the major department or the college in which the student is enrolled. The specific course requirements for the options within each of the degree programs leading to the degrees as described in the Catalogue.

**Minor** - A minor field of study consists of a minimum of 18 hours. While courses counting toward a minor may also fulfill General Education or Career Concentration requirements, minor courses may not be in a student's major discipline and/or certification area. A minor offered in an academic discipline may have multiple advisement options. A student may choose to pursue minors in more than one academic discipline.

**Career Concentrations** - Career concentrations are multi-disciplinary advisement programs to help students select course to develop appropriate skills and knowledge to prepare for entry and mobility in specific professions or careers. For example, career advisory committees exist in areas such as community services, public administration, gerontology, and environmental management and planning.

**Teacher Certifications** - Certification is the result of completing a teacher education program approved by the Pennsylvania Department of Education as defined by Chapter 49 of the Regulations of the State Board of Education - Certification of Professional Personnel. Certificates are issued by the Pennsylvania Department of Education upon the recommendation of the University, based on its approved teacher education programs. Certification does not apply to certificates issued by the University for completion of a University program. Minors cannot lead to certification to teach or supervise in the public schools of Pennsylvania.

## PRP 3604

### **Graduation Requirements**

Issued By: JoAnne S. Growney, Acting Provost and VPAA  
Effective Date: August, 1984

Notes: Approved by CCAA, 12/8/82. Approved by RA, 2/2/83. Amended by CCAA, 3/7/84. Accepted by RAX, 4/

18/84. Approved by RA, 5/2/84.

A candidate for graduation for the baccalaureate degree must have earned a 2.00 or higher cumulative quality point average, satisfied the residence requirements, and completed all academic and other applicable requirements.

Graduation from Bloomsburg University requires the successful completion of at least 128 semester hours, to include:

- 1) completion of the curriculum of an approved major program;
- 2) completion of general education requirements;
- 3) an average of 2.0 in all courses required by the major program.

The last 64 semester hours of credit toward graduation must be in courses taken in an accredited four-year degree-granting institution. At least 32 of the last 64 semester hours credited toward a baccalaureate degree must be taken at Bloomsburg University. Exceptions to this policy will be made only by the college dean with the recommendation of the appropriate department chairperson.

A semester hour is ordinarily defined as the credit for one weekly period of fifty minutes on lecture, discussion, or recitation for one semester. In some cases, as in laboratory, studio, and internship, there may not be a one to one correspondence between contact time and credit. The approved course syllabus will specify that relationship.

All financial obligations to the university must have been cleared.

## PRP 3608

### **Change in Graduation or Curriculum Requirements**

Issued By: Larry W. Jones, Vice Pres. for Academic Affairs  
Effective Date: May, 1982

Notes: Approved by CCAA, March 31, 1982. Accepted by Representative Assembly 5/5/82.

In case of changes by the university in graduation or curriculum requirements, full-time students who attend without interruption may choose to satisfy either the requirements as they existed at the time of their entrance or the new requirements; if they select to satisfy the new requirements they are responsible for them in toto. All students who are readmitted to the university and part-time students must apply to the Provost and Vice President for Academic Affairs for permission to be graduated under the requirements existing at the time of their original admission to the university.

## PRP 3612

### **General Education Requirements**

Issued by: Dr. Patrick J. Schloss, Provost and Vice

President for Academic Affairs

Effective Date: Fall 2001

NOTES: For all incoming freshmen; amended by the Bloomsburg University Curriculum Committee, September 19, 1990. Approved by BUCC 2/28/96. Presented to the University Forum April 3, 1996. Revised by BUCC 11/19/97. Presented to the University Forum February 11, 1998. Revised and approved by BUCC 4/18/01. Presented to the University Forum, May 2, 2001.

The goals of the present general education program at Bloomsburg University are to develop:

1. an ability to communicate effectively;
2. an ability to think analytically and quantitatively;
3. a facility to make independent and responsible value judgments and decisions according to high ethical values and life-long goals;
4. an appreciation of the need for fitness and life-long recreation skills;
5. a capacity for assessing the validity of ideas and an understanding of the approaches used to gain knowledge through development of critical thinking abilities;
6. a greater appreciation of literature, art, music, and theater through stimulation of one's creative interests;
7. an understanding of our society and the relative position of an individual in this society;
8. an understanding of the relationship between an individual to her/his physical and biological environments;
9. a familiarity with the major contributions of human knowledge in the humanities, social sciences, and mathematics;
10. an awareness and global understanding of the relative position of the individual in the world community.

### Specific Requirements:

#### 1. *Communication (Goal One) Six or Nine Credits*

- a. English 104 (three credits) or two courses (six credits) consisting of English 101 and one of the following courses: English 200, 201, 203, or any other approved course in English Literature with a writing component, or any other approved course centered on the teaching of writing in a specific academic discipline.
- b. one additional course (three credits) from the approved list of communication courses.

#### 2. *Quantitative/Analytical Reasoning (Goal Two) Three Credits*

Three credits from the approved list of quantitative/analytical reasoning courses.

#### 3. *Values, Ethics, and Responsible Decision-Making (Goal Three) Three Credits*

Three credits from the approved list of values, ethics, and responsible decision-making courses.

#### 4. *Fitness and Recreation Skills (Goal Four) Two Credits*

Two credits from the approved list of fitness and lifelong recreation skill courses.

#### 5. *Diversity Requirement (Goals seven and ten) Six Credits*

Six credits (two courses from different departments) which are from an approved list of diversity focused courses. Diversity courses are to focus wholly on

topics related to gender, race, ethnicity, religion, language, and/or global perspectives that provide an in-depth knowledge and understanding of cultural diversity. Diversity courses may be taken in general education, in the major, or as free electives.

### Distribution Requirements:

Thirty six (36) credits are required with 12 credits required from each of the three general academic areas of humanities, social sciences, and natural sciences and mathematics. No more than three credits from a given academic major may count toward this distribution requirement.

Courses which an individual uses to satisfy the specific communication, quantitative/analytical reasoning, values/ethics, and fitness and recreation requirements may not be used to satisfy distribution requirements. The Bloomsburg University Curriculum Committee (BUCC) or an individual academic department with the approval of the BUCC may exclude any of its courses from being counted as a distribution requirement.

**Humanities, 12 Credits** - Twelve credits from courses developing an understanding of approaches to gain knowledge in the humanities (Goal Five), creative interests in and appreciation of art, literature, music, and theater (Goal Six), knowledge of major contributions in the humanities (Goal Nine), and global awareness (Goal Ten). At least three different humanities departments must be represented in these 12 credits with two or more credits taken from each department selected. The humanities departments include Art, Communication Studies and Theatre Arts, English, History, Languages and Cultures, Mass Communications, Music, and Philosophy.

**Social Sciences, 12 Credits** - Twelve credits from courses developing and understanding of approaches to gain knowledge in the social sciences (Goal Five), an understanding of our own society and the place of an individual in that society (Goal Seven), knowledge of the major contributions in the social sciences (Goal Nine), and global awareness (Goal Ten). At least three different departments must be represented in these 12 credits with two or more credits taken from each department selected. Social sciences departments include Anthropology, Economics, Geography and Earth Science (courses with "41" numbers), Political Science, Psychology, and Sociology and Social Welfare and Criminal Justice.

**Natural Sciences and Mathematics, 12 Credits** - Twelve credits from courses developing an understanding of approaches to gain knowledge in the natural sciences (Goal Five), an understanding of the relationship of the individual to her/his environment (Goal Eight), and knowledge of the major contributions in the natural sciences and mathematics (Goal Nine). At least three different natural sciences and mathematics departments must be represented in these 12 credits with two or more credits taken from each departments selected. Natural Science and Mathematic Department include: Biological and Allied Health Sciences, Chemistry, Geography and Earth Science (courses with "51" numbers), Mathematics and Computer Science (course with "53" numbers), and Physics.

## PRP 3627

### Second Baccalaureate Degree

Issued by: Dr. Patrick J. Schloss, Vice President and Provost for Academic Affairs

Effective Date: Spring 2001

Notes: Approved by CCAA, 3/31/82. Accepted by the Representative Assembly, 5/5/82. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995. Revisions approved at BUCC 4/18/01. Presented to University Forum May 2, 2001.

An individual can earn a second baccalaureate degree upon earning a minimum of 158 credits and the completion of all major requirements for the two programs of study. This can be achieved in one of two ways:

by completing the two programs at Bloomsburg University simultaneously.

or by completing the first degree at Bloomsburg University or another accredited college or university then adding at least 30 credits of undergraduate courses at Bloomsburg University. All requirements for the major curriculum in which the second degree is earned must have been satisfied and free elective credit must have been taken if necessary to complete the additional 30 semester hours. If a particular course is required in both degree programs, it cannot be credited as part of the 30 semester hour requirement for completion of the second degree.

## PRP 3629

### Multiple Degrees

Issued by: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by the Coordination Committee on Academic Affairs, 12/8/82. Approved by RAX, 1/20/83. Approved by Representative Assembly, 2/2/83. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

A student can be awarded only one degree at a time. The degree to be awarded must be selected prior to the last semester. A student completing an additional major in another degree program will have the fact noted on the transcript.

## PRP 3640

### Academic Distinction

Issued By: Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Fall 1995

Notes: Approved by CCAA, 3/16/83. Approved by RAX,

3/23/83. Amended and approved by RA, 4/6/83.

Amended by addition of #7 by CCAA, 2/22/84. Approved by RA, 4/4/84. Amended by addition of #8 by Vice President's Advisory Council. Amended at BUCC 4/26/95. Presented at the University Forum September 20, 1995.

1. The Latin Designations - Summa Cum Laude, Magna Cum Laude, and Cum Laude should be used for identifying honor graduates.

2. The graduating seniors having cumulative quality point averages between 3.95 and 4.00 should be designated, "summa cum laude".

3. All those graduating seniors having cumulative quality point averages between 3.75 and 3.94 will be designated as "magna cum laude".

4. All those graduating seniors having cumulative quality point averages between 3.50 and 3.74 will be designated as "cum laude".

5. Honors for graduation will be as of the last previous semester; while honors for transcript and diploma will be as of the end of the final semester.

6. Forty-eight credits must be taken at Bloomsburg University prior to the last semester in order to be considered for academic honors at commencement.

7. A full-time degree student whose semester Q.P.A. is 3.5 or higher in 12 or more semester hours of course work for which a grade or grades are received will be named to the deans' list for that semester.

8. At the spring commencement ceremony the graduate in each college who has earned the highest academic average of current spring graduates within the college, shall receive a diploma on behalf of all graduates from that college. This honored graduate must have earned (prior to the final semester) at least 64 semester hours of credit at Bloomsburg University. In the case of ties, all tied graduates will participate.

## PRP 3670

### Mid-Semester Grade Reports

Issued: Dr. Wilson G. Bradshaw, Vice President and Provost for Academic Affairs

Effective Date: Spring 96

Notes: Approved by BUCC, 3/6/85. Approved by Academic Affairs Advisory Council, 3/13/86. Approved by Vice President's Advisory Council, 3/6/87. Revised by BUCC 10/25/95. Presented to University Forum November 8, 1995.

### Policy:

Bloomsburg University is committed to maintaining its students in good academic standing. To assist with the accomplishment of this goal, mid-semester grade reports are issued to new students who are experiencing academic difficulty. Identified students are provided with academic support services and faculty advisors for the purpose of insuring they have the maximum opportunity to be successful.

### Procedures:

The Registrar prepares and distributes to instructors a Mid-Semester Grade List Form for each course offered by the University. The form includes the name of each enrolled student who has completed 32 credits or less. Instructors

indicate mid-semester grades of C-,D+,D or E and return the form to the Registrar within 96 hours of the close of business of the middle day of the semester. The Registrar issues a grade report to each identified student and provides copies to the student's faculty advisor and the Coordinator of Academic Advisement.

## PRP 3700

### Computer and Network Use Policy

Issued by: Wilson G. Bradshaw, Provost and Vice President  
for Academic Affairs

Effective Date: November 17, 1999

NOTES: Approved by BUCC 11/17/99

#### Preamble

The University seeks to maintain the security and integrity of its computers, networks and related resources; to support its other codes and regulations regarding harassment and abusive behavior; to protect itself from the legal consequences of copyright violations and the posting defamatory material and to ensure that the computer facilities are used in accordance with rules and regulation of proper behavior and its educational mission.

#### The Policy

Access to the University's computing facilities and resources is a privilege granted solely to Bloomsburg faculty, staff and registered students and those with special accounts. All users of the computing facilities must act responsibly and maintain the integrity of these resources. The University reserves the right to limit, restrict or extend computing privileges and access to its resources and to remove or limit access to material posted on the University computers or being sent over its network.

#### Violations

Violation of this policy could result in a user's access to Bloomsburg University's computers and network systems being restricted or denied and being subject to procedures and penalties under other University policies, rules, codes of conduct as well as local, state and federal laws.

#### Note

Bloomsburg University understands that the rapidly changing computer environment requires that its computer use policy be flexible and adaptable. Therefore, in order to help educate the Bloomsburg University computer users and to provide guidance as to rights and responsibilities appended to this policy is a list of examples of behavior that are restricted, and questions and answers that are intended to help clarify rights and responsibilities. These are expected to change over time to meet demands of the changing issues we must confront.

#### Appendix I - Frequently asked Questions and Answers (FAQ)

As with the examples, the FAQs are intended to help educate and guide the computer user. They will respond to changing issues and needs for clarification and interpretation. It is very important to understand that the examples and FAQs do not and cannot cover

all situations and that if there are any questions regarding what is acceptable behavior they should be directed to the University administrators (vice presidents and computer administrators).

*Is my campus email or files I have stored on University computers secure?*

Everyone needs to operate on the assumption that E-mail is not secure. A rule to follow is if it would bother you to have it on the front page of the local newspaper, you shouldn't send it through email. The same caution should be applied to stored files.

*Is my email private?*

The University has the right to look at e-mail or the content of files, but it will do this only if there is reasonable cause and proper authorization is given. The University reserves the right to look at email and files if evidence indicates a violation of University rules and codes or local, state or federal laws. Appropriate authorization comes from the president, vice president and their designees.

*Are my files stored on University computers private?*

Like email on the University computers and network, files on the University equipment belongs to the university and can be accessed if there is reasonable cause to do so and proper authorization is given. In addition, supervisors in order to get material that is needed for the normal work functions may access files. For example, supervisors can get files stored on subordinate's computers if needed as part of the normal job functions and if the person is not present. During normal administrative work of maintaining systems, backing up files and other necessary work, files may be seen.

*Does the University monitor the content of what is sent over its network or posted on its computers?*

No, it does not monitor content. It does, however, reserve the right to remove or restrict material when applicable university policies or codes, or state, local or federal laws are violated. For example, the university, as necessary, may remove material that violates copyright laws or is potentially libelous.

*Are there limitations to what I can say or post on the university computers and network?*

The university wishes to support the free exchange of ideas and freedom of expression. However, it does reserve the right to limit or restrict the distribution and posting of material directed at classes of people (hate speech) and other threatening or offensive material if it believes this is creating a hostile environment or is damaging to the university.

*How do I report a violation of the computer policy?*

If you believe that a violation has occurred you should report it to the computer administrators (x4821 / x4099). You should gather as much information as you can to help in the investigations of the incident. The computer administrators will direct the complaint to other offices if needed.

In addition there may be situations where you should also report the incident to other offices. For example:

If you believe there is a violation that threatens your safety or others, you should report it to the Campus Police (x4168)

If it involves work-related activities, your supervisor should be notified.

***What are copyright violations?***

An increasingly common problem that comes with the widespread use of personal homepages is using material that is copyrighted without the permission of the owner. It is important to remember that material does not need to have the © notice on it to be copyrighted, and copyright protection extends beyond text to such things as photos, art and video. If the University is informed of copyright violations, it will act to remove the material in compliance with law.

***What are the consequences of violating the computer policies?***

The consequences of violating computer policies can range from a warning to formal actions by the University's authorities to further action, which might lead to the legal system.

***How will violations be handled?***

For violations which are less serious and do not have an immediate impact on the integrity of the systems or threaten others, the alleged offender will be requested to come to computing administrator's office so information can be gathered and the allegation discussed. If the situation is resolved, no further action is taken. For cases that are not resolved at this meeting or are more serious, violations will be handled like other violations of University codes, regulations, policies, rules and procedures. For students, this can involve the judicial procedures explained in the Student Handbook. For staff and faculty it may involve their supervisor or Human Resources and Labor Relations.

***Appendix II - Specific Examples Of Rights And Responsibilities***

These examples should be used as guidelines for behavior. They are not to be considered all inclusive as they do not cover all situations that would be violation of the general policy. As guidelines, these can change as issues and needs change.

Computer users should use only the computer ID that has been assigned. Obtaining or attempting to obtain the computer ID and/or password that has not been assigned to a user is a violation of this policy. It is also a violation of this policy to disguise or attempt to disguise the identity of the account or machine being used.

The University's network resources must not be used to gain or attempt to gain unauthorized access to remote computers.

Any action taken by computer users which deliberately disrupts or disables the operation of computers, terminals, peripherals, or networks is violation of this policy. This includes, but is not limited to, tampering

with components of a local area network (LAN) or the high-speed backbone network otherwise blocking communication lines, or interfering with the operational readiness of a computer.

Running or installing on any of the University's computer systems a program which could result in the eventual damage to a file or computer system and/or the reproduction of itself is prohibited. This includes, but is not limited to, those classes of programs known as computer viruses, Trojan Horses, and worms.

Circumventing or attempting to circumvent data protection schemes or computer security measures is prohibited.

Computer users are required to abide by the terms of all software licensing agreements and copyright laws. In particular, it is prohibited to make copies of copyrighted software, unless the University has a site license specifically allowing the copying of said software. It is further prohibited to copy site-licensed software for distribution to persons other than Bloomsburg faculty, staff, and students, nor may you copy site-licensed software for use at locations not covered under the terms of the license agreement.

Computer users must not deliberately perform acts which are wasteful of computing resources or which unfairly monopolize resources to the exclusion of others. Examples of abuse would include commercial spam, derogatory remarks, chain letters, or creating unnecessary multiple jobs or processes. Persons having questions about a possible use should contact the computing administrators.

Using University computers to send threatening, harassing, libelous or offensive messages may be contrary to University codes and or local, state or federal laws.

Computer users are prohibited from monitoring or attempting to monitor another user's data communications or copy, change, or delete another user's files or software, without permission of the owner.

Using University computer and networked resources for personal or financial gain is prohibited. (This does not apply to any activities directly related to the scholarly/professional pursuits of faculty, staff and/or students. NOTE: Please refer to PRP #2910 Patents and Copyrights.)

Any network traffic exiting the University is subject to the policies stipulated herein and to the "acceptable use policies" of the network through which it flows such as the SSHEnet.

The primary use of computing facilities is for academic-related activities. Other non-restricted use such as games are secondary and must yield to academic use. Games playing and other secondary uses may be restricted when they are found to interfere with academic use.

## PRP 3810

### Admission, Monitoring and Exit Procedures for Teacher Education Certification Program

Issued by: Patrick J. Schloss, Ph.D.

Provost and Vice President for Academic Affairs

Effective Fall, 2001

Notes: Approved by BUCC, 9/3/87. Revised by BUCC, 2/17/88, 3/31/93, 4/27/94. Approved by Forum 10/19/94. Approved by BUCC 11/14/01. Presented to Forum 11/28/01

#### Procedures:

The following are requirements for Admission, Monitoring, and Exit procedures and requirements for all undergraduate students who will major in Teacher Education Certification Programs at Bloomsburg University. In setting these requirements, attention was given to all standards and criteria for teacher candidates as mandated by the State Board of Education of Pennsylvania, the Pennsylvania Department of Education, and the National Council for Accreditation of Teacher Education.

#### Admission To Teacher Education

Students must submit a completed application packet to the faculty advisor no sooner than the completion of 48 credits and no later than the completion of 65 credits. Transfer students with 48 credits or more must submit a completed application packet during their second semester at Bloomsburg University. The faculty advisor will review the packet, interview the student, and submit a recommendation to the department chairperson indicating that the student be admitted or not be admitted to the program. Enrollment in upper division teacher education coursework (300 and 400 level courses) is contingent upon admission to the teacher education program.

For admission to teacher education, students must:

Obtain current Pennsylvania Qualifying Scores for the Praxis I: Academic Skills Assessments (See attachment of Praxis requirements)

Possess an overall cumulative grade point average of:  
Prior to Fall 2001 - 2.5

Fall 2001 - 2.6

Fall 2002 - 2.8

Fall 2003 and thereafter - 3.0

Possess a grade of C or better in all professional education and specialization courses. (The grade of C- (minus) does not meet this criterion)

Complete 6 semester hours in college level mathematics

Complete at least 6 hours in college level English Composition and literature

Successfully complete a five-day noncredit field experience by the end of the sophomore year or at the earliest possible time in the case of transfer or non-traditional students

Submit two (2) recommendations from teacher education faculty

Submit the results from a current Tuberculosis Screening administered within the last two years

Possess professional liability insurance. The policy shall be a minimum of \$1,000,000.00 per claim and \$3,000,000.00 aggregate.

Submit a resume that follows the sample format

Obtain current ACT 34 (Request for Criminal Record Check) and ACT 151 (Child Abuse History Check) clearances. Clearances are valid for one year from date issued on the form.

#### Monitoring

All teacher education students must:

Successfully complete the following courses with a grade of C or better (The grade of C- (minus) does not meet this criterion)

All professional education courses and courses in area of specialization

Communication Sequence (as specified on Program of Study Guides)

Introduction to Individuals with Exceptionalities

Maintain an overall and area of specialization cumulative grade point average of:

Prior to Fall 2001 - 2.5

Fall 2001 - 2.6

Fall 2002 - 2.8

Fall 2003 and thereafter - 3.0

Any student falling below the appropriate criteria will be placed on probation for one semester. Probationary students have one semester to re-establish the required GPA, or they will be dismissed from the certification program. Students will remain in the department for one additional semester after dismissal from the certification program so that appropriate advisement is available.

Demonstrate satisfactory performance as outlined in the program of study and consistent with the Professional Competencies listed in PDE 345.33 and PDE Specific Program Guidelines, including:

Understands the central concepts, tools of inquiry, and structures of the discipline the teacher teaches and can create learning experiences that make these aspects of subject matter meaningful for all students.

Understands how all children learn and develop, and can provide learning opportunities that support their intellectual, social, career and personal development.

Understands how students differ in their ability and approaches to learning and creates opportunities that foster achievement of diverse learners in the inclusive classroom.

Understands and uses a variety of instructional strategies, including interdisciplinary learning experiences, to encourage students' development of critical thinking, problem solving and performance skills.

Uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning and self-motivation.

Uses knowledge of effective verbal, nonverbal and media communication techniques supported by appropriate technology to foster active inquiry, collaboration and supportive interaction in the classroom.

Plans instruction based upon knowledge of subject matter, students, the community and curriculum goals.

Understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

Thinks systematically about practice, learns from experience, seeks the advice of others, draws upon educational research and scholarship and actively seeks out opportunities to grow professionally.

Contributes to school effectiveness by collaborating with other professionals and parents, by using community resources, and by working as an advocate to improve opportunities for student learning.

(PDE Chapter 354.33)

4. Continue field and clinical experiences as outlined in the curriculum and/or program of study
  5. Maintain professional liability insurance. The policy shall be a minimum of \$1,000,000.00 per claim and \$3,000,000.00 aggregate
  6. Maintain contact with their advisors each semester
- Maintain Act 34 (Request for Criminal Record Check) and Act 151 (Child Abuse History Check) clearances. Clearances are valid for one year from date issued on the form.

## Eligibility For Student Teaching

Eligibility for student teaching will be determined during the scheduling period prior to the student teaching semester. Student teaching eligibility is contingent upon:

1. Completion of the admission to teacher education
2. Possess an overall cumulative and area of specialization grade point average of:  
Prior to Fall 2001 – 2.5  
Fall 2001 – 2.6  
Fall 2002 – 2.8  
Fall 2003 and thereafter – 3.0
3. A grade of C or better in all professional education courses, specialty courses, and appropriate methods courses specified by each teacher education certification program (The grade of C- (minus) does not meet this criterion)
4. Continuation of a professional liability insurance. The policy shall be a minimum of \$1,000,000.00 per claim and \$3,000,000.00 aggregate. This policy must remain in full force and effect for the duration of the practicum or student teaching assignment.
5. Obtain Act 34 (Request for Criminal Record Check) and Act 151 (Child Abuse History Check) clearances that are valid for the duration of the student teaching semester.
6. Obtain a Tuberculosis Screening (administered the semester prior to the student teaching semester) that will be valid through the student teaching semester

## Competency In Student Teaching

All teacher education students must have:

1. Written evaluations by cooperating teachers
2. Written evaluations by university supervisors
3. Grades of C or better (The grade of C- (minus) does not meet this criterion)

## Exit Criteria

All teacher education students must have:

Completed the prescribed teacher education curriculum with an overall and area of specialization cumulative grade point average of:

Prior to Fall 2001 – 2.5

Fall 2001 – 2.6

Fall 2002 – 2.8

Fall 2003 and thereafter – 3.0

2. Demonstrated competency in student teaching with grades of C or better (The grade of C- (minus) does not meet this criterion)

## Admission To Teacher Education For Second Degree Students

Students with Bachelor's degrees enrolling in teacher certification programs must have the following overall GPA for their undergraduate degree OR, achieve the appropriate GPA after at least 12 credits as a non-degree student. These students must complete the admissions to candidacy packet before they are admitted to Teacher Education.

Fall 2001 – 2.6

Fall 2002 – 2.8

Fall 2003 and thereafter – 3.0

Requirement:

In order to receive Pennsylvania Department of Education Instructional Level I certification, candidates must successfully complete the Praxis Series: Professional Assessment for Beginning Teachers. Praxis Qualifying Scores are established by the Pennsylvania Secretary of Education (See attachment).

The Pennsylvania Department of Education will recognize the qualifying scores of any test identified as replaced for a period of five years from the date of test administration, if the test administration is prior to September 1, 2000.

Note: Students are provided with a system by which to grieve complaints of alleged academic injustices through the Teacher Education Admission, Progression, and Retention Board of the School of Education.

2/15/2000 - School of Education Admissions Task Force

1/29/2001- Revised recommendations by Office of the Dean to comply with Chapter 354 and NCATE Standards.

## PRP 3820

## Library Book and Materials Selection Policy

Issued by: Wilson G. Bradshaw, V.P. for Academic Affairs  
Effective Date: November 1996

Notes: Approved by the Representative Assembly,  
November 17, 1977. Updated 11/11/96.

It is the policy of Bloomsburg University — through the Harvey A. Andruss Library — to select, commensurate with budgetary, staff, and space allocations, books and non-book materials which support:

1. Aims and objectives of the University.
2. Content of courses offered in the curricular programs.
3. Teaching methods of faculty members.
4. Research programs of graduate students at the Master's level.
5. Research programs of faculty members.

6. Special needs of students and faculty, including general enrichment and leisure reading.
7. Other University commitments.

In the fulfillment of these objectives, selections of books and materials is considered to be a cooperative responsibility, with participation and recommendations of Library faculty, teaching faculty, administrative faculty, non-instructional staff, and students. Ultimate responsibility for overall selections and quality of library materials rests, by virtue of the position, with the Dean of Library Services.

The University administration and those charged with responsibility for selection hold to the tenet that professional integrity and responsibility to the academic community served by the library involves the freedom to have access to a wide spectrum of significant material available, as long as:

1. The educational objectives of the University are supported.
2. All sides of controversial or partisan issues are represented.

The Collection Development Policy of Andruss Library applies equally to all book and non-book materials, whether acquired by purchase, gift or exchange. Gift and exchange materials will be accepted according to the guidelines in the Gift and Exchange Policy of Andruss Library.

The University subscribed to the purposes expressed in the Library Bill of Rights adopted by the American Library Association.

## **PRP 3824**

### **Book Gift and Exchange Policy**

Issued by: James V. Mitchell, VP for Academic Affairs  
Effective Date: November 17, 1977

Notes: Approved by the Representative by the Representative Assembly, November 17, 1977.

Gifts of books, periodicals, and other non-book materials will be accepted by the Andruss Library only if the items meet established criteria. They will be examined in terms of the selection policy, and the material added will be those that meet selection standards.

The Andruss Library participates in the State-Wide Institutional Exchange Program.

## **PRP 3828**

### **Library Book and Materials Withdrawal**

Issued By: James V. Mitchell, VP for Academic Affairs  
Effective Date: November 17, 1977

Notes: Approved by the Representative Assembly, November 17, 1977.

Through the standard library practice of selective weeding, books and materials which are no longer necessary will be withdrawn from the Harvey A. Andruss Library collection.

Ephemeral and superseded materials, such as newspapers, periodicals, pamphlets and various types of reference publications, will continue to be discarded routinely as unneeded items.

Books and materials which are judged to be beyond repair will either be replaced, if possible, or discarded if no longer needed. If a book is considered to be necessary and a replacement copy is not available, the book will be retained as a non-circulating copy.

Specific titles not needed by the library, such as obsolete, superseded, or unwanted duplicate materials, requested for use by other departments on campus will be withdrawn from the library holdings and sent to those departments. All other materials will be discarded per current state-wide policy directives.

## **PRP 3870**

### **Graduate Faculty Appointment**

Effective Date: Fall 2000

Notes: Endorsed by Graduate Council February 25, 1991. Endorsed by Bloomsburg University Curriculum Committee April 3, 1991. Presented as information item to University Forum April 24, 1991. Amended by Graduate Council March 3, 2000. Amended by BUCC April 19, 2000. Presented to University Forum April 26, 2000 for information purposes.

#### **Definition**

The Graduate Faculty is composed of individuals who have earned terminal degrees in their discipline and are active scholars as demonstrated through one of the following: peer reviewed publications, peer reviewed regional/national presentations, juried exhibitions, and/or other activities that bring their work under critical review by professionals in their discipline. Individuals not possessing terminal degrees may be appointed to the Graduate Faculty only when their record of scholarship and subject mastery, as evidenced through peer review, is exceptional. Graduate Faculty is uniquely qualified to teach graduate classes. They are equally qualified to guide and evaluate research and creative activities of graduate students.

#### **Appointment to the Graduate Faculty**

Graduate Faculty members are appointed by the Assistant Vice President and Dean of Graduate Studies and Research upon the recommendation of the Graduate Council. Procedures for appointment are as follows:

The candidate's department chair and if appropriate, program coordinator, shall recommend the appointment through the appropriate college dean to the Assistant Vice President and Dean of Graduate Studies and Research. In addition to a letter of support, the recommendation should include the candidate's curriculum vitae. The vitae should contain current and sufficient detail to allow Council members to judge the candidate against standards identified in Article 1.

The letter of support and vitae shall be referred to the Graduate Council, who, by ballot, shall indicate a recommendation to the Assistant Vice President for Graduate Studies and Research will act on the application.

Upon considering the chair's letter of support, curriculum vitae, and recommendation of the Graduate Council, the Assistant Vice President for Graduate Studies and Research will act on the application.

Emergency appointments can be made to the Graduate Faculty by the Assistant Vice President and Dean of Graduate Studies and Research for a period not to exceed one semester. Emergency appointments are recommended to the Assistant Vice President and Dean of Graduate Studies and Research by the department chair in consultation with the program coordinator. Course or committee assignments may be limited by the Assistant Vice President and Dean of Graduate Studies and Research during the emergency appointment. The Assistant Vice President for Graduate Studies and Research may limit the activities during the emergency appointment to specific courses or committee.

An individual who is not a member of the graduate faculty but has the appropriate background and experience needed to teach a specific course may be approved to teach that course by Assistant Vice President and Dean of Graduate Studies and Research. Subsequent approvals for the same faculty member and course must be reviewed by the graduate faculty prior to reappointment by the Assistant Vice President and Dean of Graduate Studies and Research.

### **Functions of the Graduate Faculty:**

The Graduate Faculty shall be listed in the Graduate Catalog.

Graduate courses in a department are taught exclusively by Graduate Faculty appointed through the department or those granted a waiver under IIE.

Graduate thesis and examination committees must be chaired by a member of the graduate faculty.

The Graduate Council is comprised exclusively of individuals elected or appointed from the Graduate Faculty.

### **Adjunct Graduate Faculty**

Individuals who are not members of the Bloomsburg University Faculty may serve on thesis committees. They are appointee by the Assistant Vice President and Dean of Graduate Studies and Research upon the recommendation of the department chair in consultation with the program coordinator. Adjunct members of the Graduate Faculty cannot chair a thesis committee and shall serve in addition to the standard compliment of committee members.

### **Periodic Review of Graduate Faculty**

Graduate Faculty shall maintain a high level of scholarship in graduate teaching, scholastic/creative activities, and professional service. Evidence of these activities are routinely submitted through the tenure and/or five-year review stipulated in the Collective Bargaining Agreement. On the same schedule as the five year review and using the five year review documentation, the candidate's department chair, in collaboration with the appropriate program coordinator, shall recommend the continue appointment through the appropriate college dean to the Assistant Vice President and Dean of Graduate Studies and Research. In addition to a letter of support, the recommendation should include the candidate's curriculum vitae. The members to judge the candidate against standards identified in Article I. In the case of a decision of either the dean or department chair

not to recommend a member for reappointment the member can request an independent review and recommendation from the Graduate Council upon considering the dean's letter of support, candidate's curriculum vitae, and recommendation of the Graduate Council, the Assistant Vice President for Graduate Studies and Research will act on the application.

### **PRP 3880**

## **Graduate Course Repeat**

Issued by: Dr. Betty D. Allamong, Provost and Vice President for Academic Affairs

Effective Date: April 3, 1991

Notes: Endorsed by Graduate Council February 25, 1991.

Endorsed by Bloomsburg University Curriculum Committee April 3, 1991. Presented as information item to University Forum April 24, 1991.

### **Graduate**

A maximum of one course in which grades of "D" or "E" have been recorded or a maximum of two courses in which a grade of "C" has been recorded (totaling not more than six semester hours) may be repeated upon application to the Assistant Vice President for Graduate Studies and Research. The application shall be approved upon request in writing by the student's graduate program coordinator and department chairperson. The initial grade remains on the transcript as part of the student's permanent record. The grade of the repeated course is part of the permanent record and is used to calculate the student's quality grade point average. A course may be repeated only once. A course taken at Bloomsburg University in which a grade of "D" or "E" has been earned must be repeated at Bloomsburg University. Individual departments or graduate programs may implement more stringent requirements than those shown above.

### **PRP 3920**

## **Honorary Degrees**

Issued by: Larry W. Jones, Interim President

Effective Date: June, 1985

Notes: Approved by Committee for Recommending Honorary Degree Recipients, 5/3/85. Approved by Council of Trustees, 6/12/85.

### **I. Policy**

Bloomsburg University wishes to recognize the outstanding achievements and contributions of individuals to the institution, to the Commonwealth of Pennsylvania, to society, or to a particular academic discipline, by awarding an honorary degree. An honorary degree is an academic award which reflects the mission of Bloomsburg University in the areas of intellectual pursuit, culture and the arts, or public service. Such degrees should be awarded only to those men and women whose life and works exemplify the concepts of excellence, service and integrity.

### **II. Types Of And Criteria For Awarding Honorary Degrees**

Recipients of honorary degrees will have made noteworthy contributions to Bloomsburg University, to the Commonwealth of Pennsylvania, or to society in general and will have demonstrated either meritorious achievement or scholarship in the arts and humanities, science and technology, the social sciences, education, the health profession, commerce, trade or industry. The Committee for Recommending Honorary Degree Recipients may from time-to-time modify the existing criteria.

Bloomsburg University intends to grant the following honorary degrees:

Doctor of Law (L.L.D.) - Distinguished service to the State, to learning, to the art of living or to mankind - a service of superior character and leadership.

Doctor of Science (SC.D.) - Specific attainments and contributions in the field of science.

Doctor of Letters (Litt.D) - Specific attainments, contributions, and recognition in the field of literature, journalism and the drama, as a scholar, creative artist or writer of great talent and originality.

Doctor of Pedagogy (Pd.D.) - Special and advanced qualities, attainments contributions and recognition as a creative and experienced educator.

Doctor of Commercial Science (D.C.Sc.) - Creative leadership in commerce, trade, industry or in the broad field of business.

Doctor of Fine Arts (D.F.A.) - Specific attainments and creative contributions in the musical arts.

Doctor of Humane Letters (L.H.D.) - Specific attainments in the humanities and the social sciences or noteworthy contributions the human well-being.

The above criteria are intended to reflect the reciprocal responsibility of the University and the individual being honored. This shared responsibility serves as the basis for awarding honorary degrees. It is also expected that the recipient, through deeds and performance, will have become an exemplary model for graduates of this and other institutions of higher education. Bloomsburg University will consider any nominee who meets the guidelines without regard to any consideration other than merit.

### **III. Composition Of Committee For Recommending Honorary Degree Recipients**

The Committee for Recommending Honorary Degree Recipients shall consist of a total of eleven individuals distributed among the following constituencies and selected as indicated:

A. Four faculty members - they will be chosen through a nomination and election process determined by the President of APSCUF from the group listed below:

1. One faculty member selected from the College of Arts and Sciences
2. One faculty member selected from the College of Business
3. One faculty member selected from the College of Professional Studies
4. One faculty member selected at-large from the Unit I and II faculty.

B. The Provost and Vice President for Academic Affairs -

this individual shall serve as permanent Chairperson of the Committee for Recommending Honorary Degree Recipients.

C. The Vice President for University Advancement.

D. Two members of the Council of Trustees including the Chairman and one other member appointed be the Chairman.

E. One student appointed by the President of the Community Government Association.

F. One alumnus/alumna of the university appointed by the President of the Bloomsburg University Alumni Association.

G. One member of the non-instructional staff appointed by the President of AFSCME.

### **IV. Term Of Service**

Each member of the Committee for Recommending Honorary Degree Recipients will serve for a period of two years.

### **V. Procedure For Selecting Honorary Degree Recipients:**

The names of individuals to be considered for receipt of honorary degrees may be submitted to the Committee for Recommending Honorary Degree Recipients by any member of the Bloomsburg University community including the following:

- a. Council of trustees
- b. Alumni
- c. Administration
- d. Faculty
- e. Staff
- f. Students

Nominations must be submitted to the committee by January 31 if the individual is to receive consideration for the Spring Commencement of that year and by March 1 for any other commencement. All nominations must be made in writing and should be supported by complete biographical information. Letters of nomination and biographical data will be distributed to each committee member for his/her consideration.

Following committee deliberation, no more than three names will be submitted to the President for his/her consideration. The President will select from among those names presented by the committee and present his/her recommendation for consideration by the Council of Trustees. The Council of Trustees will accept or reject the names presented by the President.

A nomination shall remain in an active file for a period of three (3) years should it not receive the necessary support. During that time, it may be selected by majority vote of the Committee for reconsideration. Should the nomination not gain the necessary support during the three-year period, it shall be withdrawn.

### **VI. Limitations**

Except in extraordinary cases meriting special consideration, honorary degrees will not be awarded to active members of the Council of Trustees, administrators, or faculty of Bloomsburg University. At least one year must elapse following association with the University before former trustees, administrators, or faculty may be considered for an honorary doctorate.

In general, no more than two honorary degrees will be awarded during any one academic year, except by petition

to the Board of Governors under special circumstances.

## VII. Occasions For Awarding Honorary Degrees

Honorary degrees will be awarded during Commencement ceremonies of Bloomsburg University.

## VIII. Relationship To The Commonwealth

All policies, procedures and guidelines contained herein shall adhere in their entirety to the duly promulgated rules and regulations of the Commonwealth of Pennsylvania.

### PRP 3990

## Institutional Review Board (IRB) for Human Subjects Research

Issued by: Dr. Carol J. Matteson, Interim Provost and VPAA

Effective Date: October 19, 1994

Notes: Amended by Institutional Review Board Fall, 1993.

Reviewed by Graduate Council, January, 1994. BUCC approved April 13, 1994, Forum approved October 19, 1994.

Bloomsburg University recognizes its ethical and legal responsibilities to provide a mechanism to protect individuals involved as subjects in research conducted under the auspices of the University. Research, as defined by the Bloomsburg University Graduate Council Research Committee, is the systematic inquiry/investigation of a specified problem or set of problems with the goal of advancing the discipline. Therefore, all research involving human subjects will be reviewed, prior to the initiation of the research, through the procedures set forth by the University and directed by the Institutional Review Board (IRB). Failure to submit research for review and approval is a violation of Bloomsburg University policy.

### Rationale

The University policy entrusts the investigator with the primary responsibility for protection of individual subjects. The University assumes the responsibility for ensuring the conditions for protecting human subjects as required by the National Research Act, Public Law 93-348 and implemented by the Department of Health and Human Services (Title 45 CFR 46, Protection of Human Subjects, as amended and by other Federal agencies with appropriate jurisdiction.) The complete document can be reviewed in the Grants Office.

The University assumes responsibility for encouraging research activities to benefit advancement of knowledge of human conditions and, at the same time, protecting the rights and welfare of human subjects, the investigators, and the University. This includes assuring the scientific validity of the research methodology as it relates to the protection of human subjects. University faculty, staff, and students conducting human subject research are responsible to comply with this policy and all federal regulations. The IRB reserves the authority to suspend or terminate approval of research that is not being conducted in accordance with the Bloomsburg University IRB policy #3990.

### Structure

The IRB has the responsibility and authority to review and approve all research involving human subjects. The IRB may

authorize the establishment of Human Subject Research Committees (HSRC) at the department, school, or college level as an extension of the IRB for the purpose of reviewing and acting upon proposals in the "Exemption from Review" category. The dean, in consultation with department chairs, will decide on which structure will be used within a college. The HSRCs must comply with the procedures and requirements established by the IRB.

The chairperson of the HSRC will maintain a record of all proposals that are exempted from further review, and forward to the IRB all proposals which need further review. The chairperson of the department school or college HSRC shall submit a list of all research approved for exempt status to the IRB chairperson by June 1 of each year.

### IRB Membership

The IRB shall be appointed by the Provost and Vice President for Academic Affairs. Federal guidelines indicate that members should possess a sufficient background to be able to look at ethical issues and the committee should contain a balance of males and females. An individual from outside the institution must serve on the committee. Both scientific and nonscientific expertise must be included and, at a minimum, one individual must be an ethicist. Members will be appointed as follows: three from the College of Business, three from the College of Professional Studies and three from the College of Arts and Sciences. The term of office will be staggered three years terms. The Assistant Vice President of Graduate Studies and Research and the Director of Grants will serve as ex officio, non-voting, members. Departmental, school, or college HSRC chairpersons will serve as ex officio and voting members on the IRB.

### Administration

The university official responsible for carrying out or delegating executive functions is the Provost and Vice President for Academic Affairs. The executive functions include development of policy and modification to conform with laws and regulations; providing continuing educations for personnel with respect to policy; and providing administrative support and legal assistance to the IRB.

### Procedures

Researchers must describe their proposed research to the IRB in enough detail that the potential adverse effects and benefits to human subjects can be evaluated. The IRB forms and procedures provide a means for researchers, subjects, the university, and community to communicate clearly and responsibly about the risks and benefits of research for human subjects and informants.

Three principles guide the review process:

1. Subjects must give their informed consent to participate in research.

2. Researchers must provide and protect subject confidentiality.

3. Potential risks to subjects must be balanced by potential benefits of the research. The review process uses the concept of minimal risk to decide the extent to which subject interests warrant formal and extensive review of research proposals. Minimum risk is defined as "the risks anticipated in the proposed activity, are not greater than those ordinarily encountered in daily life or during performance of routine physical or psychological

tests." Risks to subjects are minimized (i) by using procedures which are consistent with sound research design and which do not unnecessarily expose the subjects to risk, and (ii) whenever appropriate, by using procedures already being performed on subjects for diagnostic purposes.

The IRB classifies research into three categories based on the need to ensure that research conforms to the above principles. These categories are Full Review, Expedited Review, and Request for Exemption from Review. These review categories are discussed in detail in the Guidelines for Human Subject Research. Approval is by majority vote in all cases.

Basic features of each category are:

**Full Review** - A Full Review occurs when the IRB reviews the proposed research and meets with the principal investigators to discuss and evaluate the impact on human subjects. After review IRB members vote to approve or disapprove the proposal. Full reviews are conducted for proposed research that involves more than minimal risk or where very careful evaluation of risks and benefits is appropriate, minors or vulnerable populations are subjects, or where adverse impact on subjects may occur due to research activities. For example, research exposing subjects to threats to dignity, physical or emotional injury or discomfort, legal liability or arrest, damage to financial or social standing, or procedures in which subjects experience stress or have their behavior, attitudes or beliefs manipulated by researchers must undergo full review.

**Expedited Review** - Expedited Review occurs when at least two members of the IRB review the proposal and independently indicate their approval or disapproval. Researchers are not required to meet with reviewers. Reviewers frequently give written comments advising the researcher on ways to enhance the protection of human subjects. Reviewers may ask for more information or require changes in procedures to enhance the provisions for informed consent, confidentiality and risk/benefit balance. Expedited research involves minimal risk to subjects but involves procedures with potential impact on subjects; such as the collection of body samples or physiological data, video or voice recordings, or studies involving vulnerable populations or sensitive issues.

**Exemption from Review** - A Request for Exemption from Review may be received by the IRB or an authorized HSRC. Researchers must complete and submit the same forms and documents required for the other review categories. These forms provide reviewers with the information needed to evaluate whether the research qualifies for exemption from review. An IRB member must approve requests for exemption. Exempted research involves research on effectiveness of or the comparison among instructional techniques, curricula, or management methods, the use of educational tests, or the study of existing data.

**Student Research** - Student research activities are governed by both the requirements of good research and the regulations of the Bloomsburg IRB. Student research is any systematic data collection and recording process done by students that is subject to interpretation and dissemination to solve a problem or advance understanding of a discipline. Dissemination occurs whenever information goes beyond registered students or assigned faculty or supervisors for the course. Examples of student research include the collection of data for a thesis, honors paper, or departmental paper or data collected for publication, distribution, presentation,

or that is publicly available beyond the course environment. It is the responsibility of faculty members overseeing student research activities to ensure that his or her students meet the professional standards of the discipline and also conform to Policy 3990 and IRB procedures.

## Procedure for Appeal

In the event a proposal is not approved at the exempt or expedited level, the researcher may request a full review of the protocol by the IRB.

**Procedures for Noncompliance** - Investigators are admonished to remember that the university policy entrusts the investigator with the primary responsibility for protection of individual subjects. It is the individual investigator's responsibility to be in compliance with this policy. The IRB is the only body authorized to take action when a researcher is in noncompliance with PRP #3990. Noncompliance includes

1. failure to submit applicable research involving human subjects for review and approval to the IRB or department, school or college HSRC;
2. failure to conduct research according to the approved protocol as it relates to the protection of human subjects.
3. failure to immediately notify the IRB when research activity results in an unexpected adverse impact on the subjects.

Allegations of non compliance (either written or oral) should be directed to the chair of the IRB. The IRB will investigate allegations of noncompliance, maintaining confidentiality in all matters. Only voting members will participate in the investigation. In the event that allegations are substantiated, the IRB will terminate approval of the research and recommend to the Assistant Vice President for Graduate Studies and Research that the research be terminated. These decisions will be communicated to the researcher and the appropriate federal agency or funding agency, if appropriate, by the Assistant Vice President of Graduate Studies and Research. A decision to terminate research may be appealed to the IRB within 15 days of notification.

## PRP 3991

### Course Assignments Involving Human Subjects

Issued By: Wilson G. Bradshaw, Provost and Vice President for Academic Affairs

Effective Date:

Notes: Endorsed by Deans' Council, November 15, 1995.

Endorsed by BUCC, January 31, 1996. Approved at Forum 2/5/97.

Student research conducted within an academic course may be categorized as either a course assignment or disseminated research. If the student research is categorized as a course assignment, the data collection and interpretation is for pedagogical purposes only and is contained wholly within the course environment. Such data is gathered without the intention of disseminating it beyond the instructor and students of the course. Disseminated research occurs whenever information is formally presented (eg. poster, oral or written) to any audience beyond the course. Disseminated research must be reviewed under Policy 3990. All research

course assignments must still be planned and carried out with a due consideration of the University's ethical and legal responsibility to protect individuals involved as the subjects of these activities, especially when exposed to more than a minimal risk. Student research which involves specialized populations as subjects (for example; pregnant women, fetuses, abortuses, prisoners, individuals with physical or mental disabilities, minors, economically or educationally disadvantaged, or institutionalized individuals) is always considered to be above minimal risk. (Minimal risk is defined as "the risks, anticipated in the proposed activity, are not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or test.") Suitable precautions must be taken to ensure the confidentiality of the results of any procedure pertaining to a particular person who is a participant in the activity.

Role of faculty in supervising student research categorized as a course assignment:

A. It is the responsibility of faculty to determine, prior to giving an assignment, whether a project falls within the area of course assignment or disseminated research. Disseminated research must be reviewed under Policy 3990. Student research originally conducted as a course assignment may not later become disseminated research. No IRB (Institutional Review Board) approval will be given after the fact.

B. It is the responsibility of the faculty to discuss research ethics with the class in the context of the assignment prior to the initiation of data collection.

C. It is the responsibility of faculty to monitor student projects from beginning to end for impact on human subjects. Special attention should be paid to maintaining confidentiality, minimal levels of risk, the freedom to withdraw, and informed consent.

D. It is the responsibility of faculty to report unexpected adverse affects on human subjects to the department chair.

## PRP 3995

### Animal Subjects Research

Issued by: Betty D. Allamong, Provost and Vice President for Academic Affairs

Effective Date: April 3, 1991

Notes: Endorsed by Institutional Animal Care and Use Committee March 22, 1991.

Endorsed by Bloomsburg University Curriculum Committee April 3, 1991. Presented as information item to University Forum April 24, 1991.

Bloomsburg University recognizes its ethical and legal responsibility to provide a mechanism to protect animal subjects used in research under the auspices of the institution. Since 1982 Bloomsburg University has maintained an Assurance of Compliance with the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Assurance #A3043). As specified under this assurance, an Institutional Animal Care and Use Committee (IACUC) was formed and maintains a program for activities involving animal

research in accordance with the National Institutes of Health Guide for the Care and Use of Laboratory Animals.

### Responsibility of the IACUC

The members of the IACUC (a) review annually the institution's program for humane care and use of animals; (b) inspect at least twice annually all of the institution's animal facilities; (c) review concerns involving the care and use of animals; (d) review protocols of research conducted at the university that involve animal subjects; (e) approve/require modification in or withhold approval of those sections of the protocol related to the care and use of animals as set forth in the PHS Policy; (f) notify in writing the investigators and the institution of its decision to approve or withhold approval of research protocols; (g) make written recommendations to the Dean of the College of Arts and Sciences regarding any aspect of the institution's animal program, facilities, or personnel training; (h) maintain minutes of the IACUC meetings, records of proposals, and proposed changes in the care and use of animals.

### Administration

The IACUC reports directly to the Assistant Vice President for Graduate Studies and Research who in turn reports to the Provost and Vice President for Academic Affairs and the President of the University. The IACUC is authorized to suspend activities involving the care and use of animals as set forth in the PHS Policy.

### IACUC Membership

Members of the IACUC shall be appointed by the Provost and Vice President for Academic Affairs and the President of the University for a three-year term. Federal guidelines require that the IACUC must consist of at least five members. At least one member must not be involved in animal research. At least one member must not be associated formally with the university. At least one member must be a veterinarian. The veterinarian may also serve as the member not affiliated with the university. The remaining members of the IACUC will be faculty actively involved in animal research. A chairperson will be elected by the members of the committee and will serve for one year.

### Applicability

Any individual conducting research employing vertebrate animals as subjects must submit an Animal Research Protocol Form to the IACUC. A research project is any activity designed to uncover new information and should not be confused with classroom demonstrations or projects where the sole purpose is to instruct students in methods of experimentation; however, all classroom demonstrations that involve surgical procedures, animal discomfort, anesthesia, or euthanasia must submit an Animal Research Protocol. The Protocol must be submitted whether or not the project is funded by a federal grant. In order to assure that research activities do not unnecessarily duplicate previous research without scientific rationale or justification, a new Protocol must be submitted for every research project or classroom demonstration, even if an identical Protocol has been previously approved. The Animal Research Protocol Form will ask each individual conducting animal research to include the scientific rationale for any duplication of an activity and a description of the appropriateness of the number of animals being used.

## **Protocol**

An Animal Research Protocol Form may be obtained from the Grants Office in Waller Administration Building. Five copies of the Protocol should be submitted to the chairperson of the IACUC. The name of the chairperson of the IACUC may be obtained by calling the Director of Grants at extension 4129. An Animal Research Protocol will be reviewed by one or more committee members. If the Protocol is not approved, it will be given a full committee review for further consideration. If a full committee review is conducted, approval of the project may be granted only after approval vote of a majority of the quorum present. The Protocol must be acted upon within two weeks of submission. The purpose of the IACUC is to address concerns directly related to the health and welfare of animals such as the procedures used to avoid or minimize discomfort, the proper use of sedation or methods of euthanasia. The purpose of the review is not to evaluate the scientific merits of the proposal. Copies of reviewed Animal Research Protocols will be maintained by the Grants Office.



